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FIELD COLUMBIAN MUSEUM

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CONTRIBUTION III

TO THE

COASTAL AND PLAIN FLORA

OF

YUCATAN.

BY

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CHICAGO, U. S. A.

January, 1898.

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Plants Collected by Dr. Geo. F. Gaumer in 1895–96, Dr. Arthur Schott in 1864–66, and Mr. Witmer Stone in 1890.

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Notes and New Species—Prof. Ludwig Radlkofer; A New Myginda—Dr. Theodor Loesener; and additional notes and species by the author.

Third Contribution to the Coastal and Plain Flora of Yucatan.

CHARLES F. MILLSPAUGH, M.D.

Since the issue of the second of these contributions, this Museum has been so fortunate as to secure from the widow of the late Dr. Arthur Schott, his entire herbarium, which includes about nine hundred Yucatan plants collected by him in 1864–66 while engaged by the Mexican Government to make a geologic survey of the Peninsula. This collection is of great importance, it being the first really comprehensive attempt to collect the flora of this region. It is, however, to be regretted that Dr. Schott's idea of numeration should have been that of numbering his collections at home, instead of in the field, and attempting to group his species of whatever habitat under certain arbitrary numbers, before such species had been positively ascertained. This will cause conflict between many of the numbers published in these contributions and those in the herbaria of the National Museum and Kew, where part sets of these plants have been previously deposited by him. A majority of his plants are included in this contribution.

In 1890 an expedition was sent into Mexico under the auspices of the Academy of Natural Sciences of Philadelphia, and in charge of Prof. Angelo Heilprin. The work extended from the Orizaba region to the Peninsula of Yucatan, where Mr. Witmer Stone, the Ornithologist of the party, incidentally collected about three hundred plants. These were approximately determined by the late Mr. J. H. Redfield and distributed, as about ninety-five species, in the herbarium of the Academy, whence they have been kindly reassembled by Mr. Stewardson Brown, and communicated to me for study by the Academy. These species, so far as determined at this time, are also included here.

Even a limited opportunity to examine the collections at the herbarium of Columbia University convinces me that the collection made by the Hon. E. P. Johnson in Yucatan and Tabasco, in 1848,

is of considerably greater proportions than Professor Helmsley reports in the botanical volumes of the Biologia Centrali-Americana. Only a patient overhauling of the whole herbarium can definitely settle the question of the species in this collection. A few genera in Leguminosæ revealed several plants which I have incorporated in the following list.

Dr. Geo. F. Gaumer has continued his collections during the past year. These, so far as determined, form the basis of this contribution, and appear in the text in parenthesized numerals in the body type—the numbers of other collectors being in *italics*.

To the above collections are added, in the following list, a few hitherto unclassified numbers collected by the author in 1887, and in 1895 while a member of the Allison V. Armour expedition, and the remaining numbers of Sr. Porifirio Valdez' century of "Medicinal Plants" collected in 1895. As heretofore, the species appearing in **black-face** type are new to the region covered by these publications.

Those specialists who have kindly contributed to the knowledge of the species, are credited under the orders they have worked.

Plants Collected by Dr. Geo. F. Gaumer in 1895-96, Dr. Arthur Schott in 1864-66, and Mr. Witmer Stone in 1890.

FUNGI.

Lentinus villosus Klotzsch.
Merida "in a garden," E. H. Thompson (947).

LICHENES.

Ramalina calicaris farinacea Schaer. **Mex-ɔul.**
On shrubs, Downs at Progreso, April to Dec. 1865 (*Schott. 311*). Powdery soredia and lateral apothecia both plentiful.

Ramalina calicaris fraxinea Fr.
"Common at Progreso" (1175).

Ramalina rigida (Pers.) Tuck. Am. Lich., i. 22.
Downs of Progreso, Dec. 1865 (*Schott, 311*). On trees and shrubs; tufts large, branches attenuate elongated, tips filiform, apothecia small.

ALGÆ.

Nostoc verrucosum Vauch. Hist. Alg., 225, *fide Prof. W. G. Farlow.*
"Found in the aguada Chulubmay, nine miles east of Izamal, March" (1097).

CHARACEÆ.

Chara gymnopus A Br. *fide Prof. T. F. Allen.*
"Common in the aguadas east of Izamal" (913). An indeterminable sterile sub-species of this form.

MUSCI.

Leucobryum incurvifolium C. Muell. sp. nov.
Species optima, ab omnibus congeneribus. Foliis rotundato-obtusatis brevissime hyalino-apiculatis, definite apice incurvi valde recedens.
"Common in the forests at Buena Vista Xbac, September" (1117).

Stereophyllum (*Moneuruim*) **perpusillum** C. Muell, sp. nov.

Monoicum caespituli latissimi perpusilli taxicaulioidei pallide virides nitiduli intricati; caulis perbrevis vage ramosus, ramis pusillus tenuibus complanatulis ætate albescenti-viridibus madore parum turgidulis; folia caulina minuta in axi crassuisculo pallide virente laxe horride conferta humore regulariter patula plagiothecoidea, e basi angustiore ad alam unicam cellulis nonnullis parenchymaticis pellucidis majusculis ornata anguste oblongo-lanceolata breviter acuminata acutata integerrima, nervo angustissimo mediano viridi parum carinata-concava, e cellulis parviis longiusculis angustiusculis laxiusculis mollibus chlorophyllosis reticulata; perichætialia pauca parum minore apressa longius acuminata; theca in pedicello brevi rubente inclinata ætate nutans parva oblonga sub ore valde coarctata fusca, operculo breviter conico; peristomium pro capsula robustum, dentibus externis angustis lutescentibus cristatis, internis minutis ciliatis rudimentariis.

Habitato America-centralis, Yucatan, in Sylvis proxe Izamal, 1897 (340.)

Ex habitu ad *Stereophyllum Peruvianum* (Mtze.) accedens, sed haecce species foliis multo laxius reticulatis magis acuminatis basi ad alar utrinque parenchymaticis longe differt.

FILICINÆ.*

Adiantum tenerum Swz. Prod. 135. *Culantrillo.*

"A growth 3 feet high, in a cave about one mile northwest of Izamal" (1071). At the cenote of Kickil (*Schott, 778*). Quinta Encalada, Merida, March 26, 1865 (*Schott, 92*).

ADIANTUM TRICHOLEPIS Fee.

At the ruins of Uxmal, Sept. 15, 1866 (*Schott, 687*). Cave near Calcehtok, March 11, 1890 (*Stone, 263,* in Herb. Acad. Sci., Phila.).

ANEIMIA ADIANTIFOLIA Swz.

At Teocali, and on the ruins in Mayapan, Feb. 28, 1866 (*Schott, 651*).

Aneimia bipinnata Moore.

Cenote ya Usil, Hacienda de Mucuyché Oct. 20, 1865; and Cenote de Uayma, March, 1866 (*Schott, 677*).

ASPIDIUM TRIFOLIATUM Swz. Syn. 43.

"Growth 3 feet high, abundant in a large cave at Buena Vista Xbac, November" (994). Cenote de Sta. Ana, Valladolid, March, 1866 (*Schott, 782,* immature specimens from same locality, *780*) Cave near Calcehtok, March 11, 1890 (*Stone, 261,* in Herb. Acad. Sci., Phila.).

*Determined by Mr. George E. Davenport.

Asplenium dentatum Linn.
At the Cenote de Telchaguillo, March 1, 1866 (*Schott, 747*).

ASPLENIUM PUMILUM Swz. **Sisalchen.**
Quinta de Obispo, Merida, Nov. 15, 1864 (*Schott, 11.*)

CHEILANTHES MICROPHYLLA Swz. Syn. Fil. 127.
On walls at Merida, Oct. 4, 1865 ; and at the ruins of Uxmal, Sept. 16, 1865 (*Schott, 686*). In well near Izamal, Feb. 28, 1890 (*Stone, 253*, in Herb. Acad. Sci., Phila.).

Hemionitis palmata Linn. Sp. Pl., 1535.
"Growth 8 inches high, common in the dense forests of Buena Vista Xbac" (1072).

Phegopteris rudis.
A single young frond, apparently of this species, was collected by Dr. Schott with his specimens of P. tetragona, (*631*) at the Cenote de Sacalum, Sept. 18. 1865.

Phegopteris tetragona Mett. Fil. Hort. Lips., 84.
"A growth 16 inches high, common on the walls of a cenote about 12 miles east of Izamal" (995). Dr. Gaumer sends another specimen of this species under the number (993) remarking: "Fern 2 feet high, occasionally seen in cultivation, and said to grow wild," which wild state is proven in his 995. Cenote de Sacalum, Sept. 18, 1865 (*Schott, 631*).

Polypodium incanum Swz. Fl. Ind. Occ., iii., 1645.
"Found growing upon the branches of Lysiloma latisiliqua at Buena Vista Xbac, in September, not seen again" (1110).

POLYPODIUM LYCOPODIOIDES Linn.
Climbing trees at the cenote of Kikil, March 27, 1866 (*Schott, 768*).

POLYPODIUM PHYLLITIDIS Linn.
At the cenote Mascabicú, March, 1866 (*Schott, 781*).

Polypodium reptans Swz.
At the cenote Uayma, March, 1866 (*Schott, 779*). Cave near Calcehtok, March, 11, 1890 (*Stone, 264*, in Herb. Acad Sci., Phila.).

SALVINIACEÆ.

Salvinia auriculata Aub. *fide Prof. Underwood.*
"Found floating upon the surface of the water of many of the aguadas near Izamal, November" (1007). Smaller than usual and sterile; probably young plants.

LYCOPODINÆ.

SELAGINELLA LONGISPICATA Underw. Field Col. Mus. Bot., i., 287.
Small but typical plants from Nohcacab, Nov. 1865; and Merida, Sept. 1865 (*Schott, 669.*)

CYCADACEÆ.

Cycas circinnalis Linn. Sp. Pl., 1658. *Teoiczotl.*
Cultivated at Merida, March 11, 1866, not in flower (*Schott, 748.*)

GRAMINEAE.*

Andropogon hirtiflorus Kth. Revis. Gram., ii., 569.
"Tekax, on old fields, 3 feet high, Sept." (1134.)

Andropogon semiberbis Kth. Enum., 489.
"Two feet high, abundant on stone walls; house roofs and on the ancient ruins, rare in fields, about Izamal," Nov. (1037.)

Andropogon sorghum Drummondii Hack. de C. Monog. Phan. vi., 507.
"Three feet high, in an old field at Buena Vista Xbac," April (1053.)

Anthephora elegans Schreb. Besch. Græs., ii., 105.
"Common in old fields near Izamal, 1 foot high." Oct. (1030). Merida, Sept.; and Hacienda San Rafael, Oct. 1865 (*Schott, 549*).

Aristida nigrescens Presl., Rel. Hænk., i., 223.
Merida, Aug. and Oct. 1865 (*Schott, 601, 656 in part*).

Arundo Donax Linn. Sp. Pl., 81.
"Common on the coast in aguadas and cenotes, often cultivated. 20 feet high" (1141).

Bouteloua Americana (Sw.) Scribn. loc. cit. 306.
Aristida Americana Sw. Obs. 41, t., f. 2; 1791 ex Kunth. *Sinebra repens* H. B. & K. Nov. Gen. et. Sp., i. 172, t. 52; 1815.
"Brushlands near Izamal, uncommon, 3 feet high." Oct. (1036).

Bouteloua bromoides Lag., Gen. et Sp. Nov., 5.
Merida, Sept., Oct. and Nov., 1865; and at the ruins of Uxmal Sept. 16, 1865 (*Schott, 656, 742, 659*). Depauperate specimens from Tekanto, Feb. 28, 1890 (*Stone, 189*, in Herb. Acad. Sci. Phila.)

Bouteloua disticha (H. B. K.) Benth. Jour. Linn. Soc. xix., 105.
Polyodon distichum H. B. K. Nohcacab, Nov. 24, 1865 (*Schott, 741*). Presl. referred this to *Bouteloua bromoides* H. B. K.

BOUTELOUA TRIÆNA (Spreng.) Scribn. Proc. Phila. Acad. 1891, 307.
Triæna racemosa H. B. K. "Two feet high; uncommon on old fences and low shrubbery, upon which it depends for support." Izamal, Aug. (1026). Nohcacab, Nov. 24, 1865 (*Schott, 740*) Tekanto, Feb. 25, 1890 (*Stone, 210*, in Herb. Acad. Sci. Phila.).
For synonomy see p. 10, Contrib. I.

*Determined by Prof. F. Lamson-Scribner.

Cenchrus echinatus Linn. Sp. Pl., 1050.
To be compared with *C, viridis* Spreng., which Griesebach refers to *C. echinatus* as a variety. "Very abundant on cultivated lands near Izamal, 18 inches high" (1084). Merida, Aug. 1865 (*Schott, 498* in part).

CENCHRUS PALLIDUS Fourn., Mex. Pl. Enum. Gram., 50. **Mul.**
Merida, July and Aug. 1865 (*Schott, 596, 498*). Schott's *596* equals Liebmann's *465*.

Chloris barbata Sw. Fl. Ind. Occ., i. 200.
"Abundant on stone walls near Izamal, 18 inches high." (1085).

Chloris ciliata Sw., Prod. Veg. Ind. Occ., 25.
Merida, Aug. 3, 1865 (*Schott, 383*). Calcehtok, Mar. 11, 1890 (*Stone, 274*, in Herb. Acad. Sci. Phila.).

Chloris elegans H. B. K., Nov. Gen. et Sp. i. 166.
At Sacalum, Sept. 18, 1865 (*Schott, 632*).

COIX LACHRYMA-JOBI Linn. Sp. Pl. 972.
"Izamal. One plant came up spontaneously in my yard in 1894, and produced a quantity of seed; this was followed in 1895 by several plants springing up in the same place and producing a great quantity of seed; but none came up in 1896" (1031). See p. 9 spec. cit.

CYNODON DACTYLON Pers., Syn. Pl., i. 85.
At the hacienda Saragossa, Sept. 8, 1865 (*Schott, 737*).

Dactyloctenium Ægyptiacum (L.).
Merida, Aug. and Sept. 1865 (*Schott, 734*). *Cynosurus Ægyptius* Linn.

Distichlis spicata (L.). Greene Bull. Calif. Acad., ii. 415.
Uniola spicata Linn. Celestun, May 13, 1865 (*Schott, 494*).

ELEUSINE INDICA Gaertn. Fruct., i. 8.
"Abundant in shady places near Izamal, 15 inches high" (1086). Merida, Aug. and Sept. 1865 (*Schott, 593* in part, *738*).

ERAGROSTIS CILIARIS Link. Hort. Berol., i, 192.
Yucatan loc. ignot. (851). Merida, at Quinta del Obispo, Nov. 24, 1864, and Sept. 5, 1865; and at the ruins of Uxmal, Sept. 16, 1865 (*Schott, 20. 619*). Tekanto. Feb. 27, 1890 (*Stone, 187*, in Herb. Acad. Sci. Phila.).

Eragrostis elongata Jacq. Ec. Gram., t. 3.
Sublitoral at Sisal, Oct. 24, 1865 (*Schott, 640*). Compares with specimens in the Bernhardi herbarium, labeled by Presl.

Eragrostis plumosa Link, Hort. Berol., i. 192).
Merida at Quinta del Obispo, Nov. 1864, and Sept. 1865 (*Schott, 59*).

Guadua latifolia H. B. K.? Syn. Pl. i. 254.
Merida, Jan. 1866, lacking inflorescence (*Schott, num. amiss.*).

Gouinia latifolia (Griseb.) Vasey. Rose in Contrib. Natl. Herb., i. 365.
Tricuspis (Neuroblepharum) *latifolium* Griseb., Pl. Lorentz, 259. Nohcacab, Nov. 25, 1865 (*Schott, 703*).

Gouinia virgata (Presl.) Scribn. U. S. Dept. Agr. Div. Agrost. Bull. 4, 10.
Bromus virgatus Presl. Rel. Hænk., 263. *Gouinia polygama.* Fourn. Enum. Pl. Mex. Gram., 103. Tekax, Sept. (1033).

Ichnanthus lanceolatus Scribn. & Sm. **Xcanchim.**
"An erect or ascending, cæspitose, branching perennial 1 to 2 feet high, with lanceolate leaves and simple panicles of few loosely flowered racemes. Sheaths shorter than the internodes, ciliate along the margins, otherwise smooth, or the lowermost pubescent; ligule a short ciliate fringe of hairs; leaf blade 1 to 3 inches long, ¼ to ½ inch wide, lanceolate acute, smooth, many nerved, with a narrow cartilaginous margin abruptly narrowed at the base, this contraction forming in the lower leaves, especially those of the sterile shoots, a slender channeled petiole, which, like the sheaths, is ciliate along the margins. Panicle branches, erect or ascending (spreading in anthesis), 1 to 2 inches long, the uppermost shorter. Spikelets in pairs, one subsessile, the other raised on a pedicel about as long as itself. Spikelets ovate-lanceolate, acute, glabrous, about 2 lines long; first glume ovate, acute, strongly 3-nerved, one-half to three-fourths the length of the spikelet, scabrous on the mid-nerve above; second glume ovate-lanceolate, acuminate, 5-nerved, nearly clasping the similar empty third glume; base of the fourth glume surrounded by the third; fourth glume about 1.5 lines long, oblong-lanceolate obtuse, 5-nerved, very smooth and closely rolled about the palea, which is of similar texture.—"Old fields about Izamal, No. 854. George F. Gaumer, September, 1895. Yucatan." Scribner & Smith, U. S. Dept. Agric. Div. Agrost. Bull. 4, Feb. 6, 1897, p. 36. "Common in the forests of Buena Vista Xbac," Sept. (1111). This is the Panicum sp. of p. 288, these contributions.

LEPTOCHLOA MUCRONATA Kth. Rev. Gram. i, 91.
Environs of Merida (*Schott*, May 1865, *401;* July 1865, *401, 590;* Nov. 1865, *739.*)

Oplismenus Burmannii (R. Br.) Beauv., Agrost., 54.
Orthopogon R. Br , Prod., 194. "In shady places, 3 feet high, common about the mouths of caves and around cenotes and aguadas near Izamal," Oct. (1038). Merida at the Quinta del Obispo, Nov. 1864; and Merida, July 1865 (*Schott, 55, 384.*)
In Dr. Schott's *384* and Dr. Gaumer's 1038 the spikelets are somewhat larger and the foliage larger and denser than in Dr.

Schott's 55, and some authors have referred the former to *Oplismenus cristatus* (Presl). Both forms have been referred to *O. Humboldtianus* Nees. In the Kew Index, *O. cristatus* and *O. Humboldtianus* are referred to *O. Burmannii*. Beauv.

Panicum Carthaginense Sw., Fl. Ind. Occ., i. 148.
Merida, July 11, 1865 (*Schott, 592*).

PANICUM COLONUM Linn., Syst. ed. x, 870.
At the Quinta del Obispo, Merida, Nov. 1864; and at Merida, June and July 1865 (*Schott, 42, 598*).

Panicum Crus-galli Linn. Sp., Pl., 50.
Borders of an aguada at Kanachen, March 1866 (*Schott, 832*).

Panicum divaricatum Linn. Elmg. Pl. Jam. Perg., 9.
"Common on fences in low brushlands, 4 feet high. Izamal" (1032). Merida, 8 to 9 feet high, Oct. 11, 1865 (*Schott, 675*).

Panicum divaricatum latifolium (L.) Fourn. Enum. Pl. Mex. Gram., 33. **Sit.**
P. lanatum Sw. Griseb., Flor. Brit. W. Ind., 551. "Common along old fences and in brushlands near Izamal, Aug. to Feby." (1025.) Merida, Aug. and Sept. 1865 (*Schott, 600*).

PANICUM FUSCUM Sw., Prod. Veg. Ind. Occ., 23.
Merida, May and June 1865 (*Schott, 384*).

Panicum lanatum Rottb. Act. Lit. Univ. Hafn., i. 269.
P. insulare Meyer., *P. leucophæum* H. B. K. Merida, 1865 (*Schott, 94*).

Panicum marginatum (Link) not R. Br., nor Vahl.
Digitaria marginata Link. Hort. Berol., i, 102. *Panicum Linkianum* Kth. Gram., i. 33. "Common in waste places near Izamal. 3 feet high, Nov." (1034.) Merida, Aug. 27, 1865 (*Schott, 609*).

Panicum maximum Jacq. Ic. Pl. Rar., i, t. 13. *Sacate Guinea.*
P. jumentorum. Pers. Syn., 83. "Common in cultivation, growing from 6 to 8 feet high. Izamal, June" (719). Merida, Aug. 20, 1865 (*Schott, 595*).

PANICUM SANGUINALE Linn. sp. Pl. 57.
Yucatan, loc. ignot. (1029). Merida Aug. 20; ruins of Uxmal, Sept. 16, 1865 (*Schott, 586, 735*).

Paspalum elongatum Griseb. Pl. Lorentz., 260.
Merida, Aug. 3, 1865 (*Schott, 593*). This specimen agrees with *1306* Bang's Bolivian collection of May 1892.

Paspalum lentiginosum Presl.? Rel. Haenk., i. 218.
Merida, July 11, 1865 (*Schott, 597*). Allied to *P. paniculatum* Linn. Spikes 4 to 5 slender, 1.5 to 2.5 in. long, the lower ones remote.

Paspalum paspaloides Pers. Syn., 81.
"Izamal, common in old fields, 3 feet high, Oct." (1027).

Paspalum vaginatum Sw., Prod. Veg. Ind. Occ., 21.
In fresh water at the aguada and Cenote de Nabulá on the Hacienda Chablé, Aug.; and salt swamps near Sisal, Nov. 1865 (*Schott, 546, 733*).
This species appears to me distinct from *P. distichum* Linn.

SETARIOPSIS AURICULATA (Fourn) Scribn., Field Col. Mus. Bot., I. 289.
Merida, July and Aug.; and Hacienda Saragossa, Sept. 1865 (*Schott, 592, 591, 621*).

Streptachne tenuis H. B. & K., Nov. Gen. et sp., i, 124.
Aristida tenuis Kth. Rev. Gram., i, 62. "Uncommon among low shrubbery along old fences near Izamal, 3 feet high. Aug." (1024.) Merida, Sept. 1865 (*Schott, 736*).

Under the number *594* Dr. Schott collected in the Aguada de Labcah in July 1865, a portion of a gramineous species near *Arundinaria*, to which he applies the Yucatec name *Cañote*, also *547* from gardens at San Rafæl de Xteppen, an *Andropogon*. Neither specimen bears flowers nor fruits, in fact no portion of an infloresence. With these two the above list includes all the gramineæ in the Yucatan portion of his herbarium.

CYPERACEÆ*.

Cyperus Sp.
Prox. *speciosus*. "Height 3 feet, common in moist, shady places near Izamal." (1035).

CYPERUS OCHRACEUS Vahl. Enum. ii., 325.
Yucatan loc. ign. (1028).

Cyperus rotundus Linn. sp. Pl., 67?
"One foot high, common in moist places near Merida" (1088).

Cyperus squarrosus Linn, Cent. Pl., ii. 6.
"Six to 10 inches high, common in old fields near Izamal" (1023).

Rynchospora micrantha Val. Enum. ii., 231.
"One foot high, common in the forests of Buena Vista Xbac, September" (1115).

PALMÆ.

Acrocomia Mexicana Karw. Mart. Hist. Nat. Palm, iii. 285 *Cocoyol.*
Merida, Dec. 1865 (*Schott, 805*). "Next to the Coco the tallest and most graceful palm of the region."

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*Determined by Prof. N. L. Britton.

Attalea Cohune Mart. in Palmet. Orb., 121. *Caraso.*
Cult? Hacienda Oxcom, Feb'y 4, 1866 (*Schott, 726* in Herb. U. S. Nat'l Mus.).

Chamædorea gracilis Willd. Sp. Pl. iv. 800. **Xiat.**
"Palm 20 feet high, abundant at Xcholac and Buena Vista Xbac, flowering from Feb'y to March" (420). Ruins of Nohpat, Nov. 24, 1865 (*Schott, 719*).

COCOS NUCIFERA Linn. Sp. Pl., 1658.
Cult. Merida, Dec. 1865 (*Schott, 712*).

Phœnix dactylifera Linn. Sp. Pl., 1658.
Cult? at the Rancho San Joaquin, near Mayapan, March 1, 1866 (*Schott, 749*).

SABAL MEXICANUM Mart Hist. Nat. Palm., iii 246. **Xaan.**
"A very common tree in the forests of the peninsula, flowering throughout the year" (317). Merida, Jan'y, 1866 (*Schott, 802*).

Thrinax argentea Lodd. Desf Cat. Hort. Par., iii. 31. **Chit.**
Downs at Progreso, Dec. 22, 1865 (*Schott, 293, 721*).

ARACEÆ.

Arisæma sp.
"In moist places, forests about Izamal" (1091).

Arum Italicum Mill. Gard. Dict., ed. viii, n. 2.
Merida Cult? March to June, 1865–6 (*Schott, 489*).

Caladium bicolor Vent. Jard. Cels., t. 30. *Papagayo.*
Merida, June, 1865 (*Schott, 434*).

Philodendron trifoliatum.
Mayapan, Feb'y 28, 1866 (*Schott, 836*).

LEMNACEÆ.

WOLFFIA BRAZILIENSIS Wedd. An. Sc. Nat., 1849. 170.
Hacienda de San Rafael Xteppen, July 7, 1865, and Hacienda de Chablé, Aug. 8, 1865 (*Schott, 541*).

BROMELIACEÆ.

ÆCHMEA BRACTEATA (Sw.) Mez. de C. Monogr., ix. **Xkeo.**
"Six feet tall, abundant in the forests about Izamal, producing its yellow flowers from Feb'y to June" (419). Road to Progreso, April 7, 1865 (*Schott, 274*).

BROMELIA PINGUIN Linn. Sp. Pl., 285. **Oalbay.**
Aguada Calatcapek, April 2, 1866 (*Schott, sine. num.*).

Karatas Plumieri E. Morr. Belg. Hortic, 1872, 131. *Pinuela.* **Chom.**
Merida, June 19, 1865 (*Schott, 558*).

Tillandsia brachycaulos Schl. in Linnaea., xviii, 422. **Mis.**
"Herb 12 inches high, abundant on trees near Izamal, producing its royal-purple flowers in June" (742). Merida, July, 1865 (*Schott, 557*).

TILLANDSIA FASCICULATA LATISPICA Mez. de C. Monogr. Phan, 9.
Merida, March 10, 1865 (*Schott, 435*). **Xolohbenal.**

TILLANDSIA RECURVATA Linn. Sp. Pl., ii, 410.
Merida, Nov. 13, 1864 (*Schott, 35*).

Tillandsia setacea Sw. Fl. Ind. Occ. i, 593.
Merida, July 11, 1865 (*Schott, 842*).

TILLANDSIA STREPTOPHYLLA Scheidw. Hort. Belge. iii, 252.
Merida, June 26, 1865 (*Schott, 349*).

TILLANDSIA UTRICULATA Linn. Sp. Pl., ed. ii, 411.
Merida, July 28, 1865 (*Schott, 556*).

TILLANDSIA VESTITA Cham. & Schl. Linnæa vi, 52.
Merida, Dec. 11, 1864 (*Schott, 161*).

COMMELINACEÆ.

CALLISIA REPENS Linn. Sp. Pl., 62.
Merida (*Schott sine. num.*); loc. ign. (*Schott, 151*). "Herb 18 inches to 2 feet, abundant in fields and forests about Izamal, its blue flowers appearing throughout the year" (376). "Prostrate 3 feet, rooting at the joints (1079).

Commelina nudiflora Linn. Sp. Pl., 4.
Merida. Nov. 30, 1864 (*Schott, 32*).

Commelina pallida Willd. Hort. Berol. ii, 87.
Collected by Dr. Gaumer near Izamal together with Callisia repens No. 376.

RHOEO DISCOLOR (L. Her.) Hance, Walp. Ann., iii, 659. **Chac-Oam.**
Merida, Feb'y 11, 1865; Ruins of Labcah near Hacienda Chemax, July 30, 1865 (*Schott, 239, 564*).

Spironema fragrans Lindl. Act. Soc. Sc. Fenn, x, 127.
"One foot high, rare at Xcholac, producing its white flowers in March" (421).

Zebrina pendula Schniz. in Bot. Zeit vii, 870.
"Ascending 3 feet, commonly cultivated at Izamal, producing its bright blue flowers from August to March" (412).

LILIACEÆ.

Smilax Gaumerii sp. nov. **Xcoché.**

Stem cylindrical, striate, climbing 25 feet, armed with strong triangular-flattened prickles, mostly in pairs opposite the branches, sometimes slightly curved at the points; branches subcylindrical, striate, more or less zig-zag, aculeate; leaves ovate-lanceolate, taper-pointed, mucronate, oblique at the base, strongly reticulate-veined above and below, 3-nerved, the mid rib furnished with 1-2 recurved prickles; petioles short, jointed at the middle and furnished with a stout recurved prickle at the joint; stipules sheathing, often aculeate and sometimes prolonged into light grey ligneous tendrils. Inflorescence axillary, globular, peduncle about half the length of the pedicels. Leaves 1 to 2.5 inches long, .5 to 1 inch broad, petioles .25 inch long, stem prickles .25 to .36 inch long. Frequent on forest and brush lands about Izamal, June (687).

AMARYLLIDACEÆ.

YUCCA YUCATANA Engelm Trans. Acad. St. Louis iii. 37.

Ruins of Nohpat, Nov. 24, 1865 (*Schott, 706*).

Zephyranthes Lindleyana Herb. Amaryll. 174. t. 35. f. 5.

"Herb 8 inches high, very abundant in the town of Izamal, opening its sulphur-yellow flowers in September (836).

DIOSCOREACEÆ.

Dioscorea alata Linn. Sp. Pl., 1033.

Hacienda San Rafael Xteppen, Cult?, Aug. 7, 1865 (*Schott, 548*).

Dioscorea calyculata Donnell-Smith, Bot. Gaz. xx, 295.

"Vine 40 feet, common on vacant and waste lands where it flowers in November" (931).

Dioscorea floribunda Mart. & Gal., Bull. Acad. Brux., ix, 391.

"Vine 20 feet, common on brush lands, Nov." (925, 926).

Dioscorea macrostachya Bth., Pl. Hartw., 73.

"Vine 12 feet, abundant on brush lands, Sept." (794).

Dioscorea polygoniodes H. & B., Willd., Sp. Pl., 795.

"Vine 20 feet, common on brush lands, Nov." (928).

Dioscorea sativa Linn. Sp. Pl., 1033. *Bolador.*

"Vine 60 feet, rarely cultivated; blooms in October, and produces at every leaf an edible fruit resembling the potato, the large tuberous root is also eaten" (920).

MUSACEÆ.

MUSA SAPIENTUM Linn. Sp. Pl. 1477. **Haas.**
Merida at the Quinta del Obispo July to September, 1864-5 (*Schott, 849*).

CANNACEÆ.

Canna edulis Ker-Gawl Bot. Reg. ix, t. 775.
"Common in cultivation at Izamal where it flowers from July to March" (963).

PIPERACEÆ.

Piper auritium H. B. K., Nov. Gen. & Sp., i. 54. **Xmacolan.**
Merida at the Quinta del Obispo, Nov. 25, 1864 (*Schott, 183*). Abundant about Merida (*Valdez, 80*).

CASUARINACEÆ.

CASUARINA EQUISETIFOLIA Linn. Amoen. Acan., iv. 143. *Cipres.*
A cultivated tree 100 feet high, loc. ign. (945). Merida Dec. 1864 (*Schott, 60*).

MORACEÆ.

ALICASTRUM BROWNEI Kuntze, Rev. Gen., 623.
Brosimum Alicastrum Sw. Merida, June 25, 1865; Hacienda Xteppen, July 7, 1865 (*Schott, 555, 561*). Tekanto, Mar. 9, 1890 (*Stone, 225*, in Herb. Acad. Sci., Phila.).

Artocarpus incisa Linn. f. Suppl., 411. *Arbol de Pan.*
Cult? Hacienda Taulum, Dec. 1865. (*Schott, 816*).

Castilloa elastica Cerv. Supl. Gaz. Lit. Mex., 7. *Hule.*
Cult? Hacienda de Kanachen, March 1866 (*Schott, 777*).

Cecropia obtusa Trec. Ann. Sc. Nat., 1847, 79. **Xcoochlé.**
Ruins of Uxmal, Sept. 15, 1865 (*Schott, 639*).

Chlorophora tinctoria (L) Gaud. Freyc. Voy. Bot. 1826.
Morus tinctoria L., *Maclura tinctoria* Don. Male tree at Merida July 3, 1865 (*Schott 517*); female at the Aguada de Labcah, near the Hacienda de Chemax, July 30, 1865 (*Schott, 607*).

DORSTENIA CONTRAJERVA HOUSTONIANA Bureau. **Xcampahuy.**
Merida at Quinta del Obispo, Nov. 24, 1864 (*Schott, 46*).

Ficus sp. **Saccabah.**
Aguada de Calotyaxek, leaves only, March 1866 (*Schott, 783*).

Ficus Bonplandiana Miq. An. Mus. Bot. Lugd., iii, 298.
Golondrino. Alamo.
Cult? at Celestun, May 12, 1865 (*Schott, 352*).

FICUS LONGIPES Miq. loc. cit. *Copó. Alamo.*
At the Hacienda de San Rafael Xteppen Aug. 7, 1865 (*Schott, 846*).

MORUS CELTIDIFOLIA H. B. K. Nov. Gen. et sp., ii, 33.
Merida (*Schott, 847*).

URTICACEÆ.

Urera baccifera (L.) Gaud. in Freyc. Voy. Bot., 497. **Laal Oimin.**
Ortega de Caballo.
"Common on the ancient mounds, and frequently cultivated for hedges near Izamal, November, but often out of season" (936). Our plant agrees with Regnell's *410*, Minas Geraes, Brazil; and Rusby's *1467*, Mapiri, Bolivia.

URERA MICROCARPA Wedd Arch. Mus. Par., ix, 156. **Laal.**
Ortega de los Caballos.
Tizimin, March 28, 1866 (*Schott, 796*).

ARISTOLOCHIACEÆ.

ARISTOLOCHIA BREVIPES, Benth. pl. Hartw., 15. *Guaco.*
Merida, Nov. 29, 1864; Aug. 30, 1865 (*Schott, 426*). Oitas March 31, 1866 (*Schott, 839*).

Aristolochia maxima Jacq. Enum. Pl. Carib. 30. *Guaco del Sur.*
Nohcacab, Sept. 1865 (*Schott, 789*).

POLYGONACEÆ.

ANTIGONON LEPTOPUS Hook. & Arn. Bot. Beech. Voy., 308.
Flor de San Diego.
"Vine 60 feet, common in cultivation, often also found growing wild, flowers profuse and showy" (1132). Over old fences about Merida, Apr. 14, 1887 (*Millspaugh, 43*). Merida, Nov. 1865 (*Schott, 51*).

PODOPTERUS MEXICANUS H. & B. Pl Æquin. ii, 89. **Sacioa.**
Merida June 16, 1865 (*Schott, 487*).

CHENOPODIACEÆ.

ATRIPLEX CRISTATA Humb. & Bonpl.? ex Willd. Sp. Pl. iv 959.
"Common on the beach at Progreso" (1169). Our plant does not exhibit the serrations of the leaf given in the description, being sub-entire.

Chenopodium album Linn. Sp. Pl., 319. *Quilites.*
"Herb 6 to 10 feet high, often observed in cultivation and escaped into fields where, however, it finally dies out" (1065).

Salicornia Bigelovii Torr. Bot. Mex. Bd., 184.
S. mucronata Bigel. non Lag. "Shores of lagoon at the Port of Silam" (633). Celestun, May 12, 1865 (*Schott, 297*).

Suaeda fruticosa Forsk, Fl. Æg. Arab. 70.
"Herb 2 feet high, common at Progreso" (1172).

AMARANTACEÆ.

Alternanthera obovata (Mart. & Gal.)
"Herb 2 feet high, rare, only one clump seen, and that in the Plaza de los Remedios at Izamal, where it flowers from September to January" (905).

Alternanthera repens (L) Kuntze Rev. gen. Pl., 540.
"Prostrate herb 2 to 8 inches, infrequent, roadside six miles east of Izamal, April" (1070).

ALTERNANTHERA STRAMINEA (Mart.) Millsp. Field Col. Mus. Bot. i, 16.
Calcehtoh, March 11, 1890 (*Stone, 266* in Herb. Acad. Sci., Phila.).

AMARANTUS HYBRIDUS Linn. Sp. Pl., 1406.
"Herb 8 to 12 feet high, common in old fields about Izamal, flowering in December" (1081). The densely flowered, congested-paniculate form. Merida, July 1, 1865 (*Schott, 817*). Calcehtoh, March 11, 1890 (*Stone, 262*, in Herb. Acad. Sci., Phila.).

GOMPHRENA DECUMBENS Jacq. Hort. Schœnber., t. 482.
Merida, Aug. 20, 1865 and Nov. 15, 1864 (*Schott, 82,818*) Tekanto, Feb. 27, 1890 (*Stone, 221*, in Herb. Acad. Sci., Phila.).

Gomphrena globosa Linn. Sp. Pl., 224.
The white-flowered form Merida Jany. 14, 1866 (*Schott, 731*); the purple-flowered form from the same locality (*Schott, 730*).

IRISINE CELOSIOIDES Linn. Sp. Pl., 1456.
"Climber 15 feet, abundant in open wild lands, near Izamal, and occasionally seen in cultivation, April" (1078).

Kokera paniculata (L.) Kuntze Rev. Gen. Pl., 542.
Chamissoa H. B. K. "A scandent shrubby plant 10 feet high, common near the aguada de Xcholac, flowering in November" (1011).

PHILOXERUS VERMICULATUS (L.) R. Br. Prod., 416.
Celestun May 13, 1865 (*Schott, 380*).

PHYTOLACCACEÆ.

PETIVERIA ALLIACEA Linn. Sp. Pl., 486. *Zorilla.*
Suburbs of Merida, Nov. 14, 1864 (*Schott, 31*).

NYCTAGINACEÆ.

Allionia violacea Linn. Syst., ed. x, 890.
Hacienda Sooil northeast of Merida July 30, 1865 (*Schott, 531*).

Boerhaavia erecta Linn. Sp. Pl., 4.
"Erect, flowers lilac, Merida June 12, 1865 (*Schott, 478*) Tekanto, flowers pink, Feb. 27, 1890" (*Stone, 214*, in Herb. Acad. Sci., Phila.).

Bœrhaavia scandens Linn, Sp. Pl., 4.
"Procument, flowers yellow, calyx glandular, Merida, June 12, 1865" (*Schott, 21*).

Mirabilis Jalapa Linn. Sp. Pl., 252.
Campo, suburbs of Uman, April 1887 (*Millspaugh, 36*).

Pisonia aculeata Linn. Sp. Pl., 1511.
Merida suburbs. In flower Dec. 1864; in fruit Feby. 1865 (*Schott, 143*). Ticul, bush 6 ft., flowers greenish-yellow, fragrant, March 16, 1890 (*Stone, 285*, in Herb. Acad. Sci., Phila.).

PORTULACACEÆ.

Portulaca oleracea Linn. Sp. Pl. 638.
"Abundant on cultivated grounds, producing its yellow flowers in profusion from July to February" (1001).

Portulaca pilosa Linn. Sp. Pl. 639.
Merida suburbs, Dec. 1864, July 1865 (*Schott, 150*).

Sesuvium Portulacastrum Linn. Sp. Pl., 684. **Oaican.**
Celestun May 1865 (*Schott*, 488).

NYMPHÆACEÆ.

Castalia ampla (De C.) Salisb. Parad. Lond., 1805. 73.
Aguada de Labcat near Merida July 30, 1865, and Aguada de Xcholac, March 1865 (*Schott, 528*).

ANONACEÆ.

Anona muricata Linn. Sp. Pl., 536. *Guanabano.*
Cult ? Quinta del Obispo, Merida, (*Schott, sine num*).

Anona palustris Linn. Sp. Pl., ed. ii., 757. *Corcho.* **Mag.**
Aguada Calotyaxek, *sine die* (*Schott, 19*).

Anona squamosa Linn. Sp. Pl., 537. *Saramuyo.*
Merida, cult ? June 18, 1865 (*Schott, 497*), Hacienda Taulum, Dec. 1865, not in flower (*Schott, 820*).

MENISPERMACEÆ.

CISSAMPELOS PAREIRA Linn. Sp. Pl., 1473.
Campo about Merida, in full flower June to Nov. 1864–5 (*Schott, 91, 500*).

LAURACEÆ.

CASSYTHA FILIFORMIS Linn. Sp. Pl., 530.
Climbing over *Conocarpus erectus* at Sisal Nov. 10, 1865 *Schott, 698*).

PERSEA GRATISSIMA Gaertn. Fruct., ii. 222. **On.**
Cult ? Merida, Feb. 6, 1865 (*Schott, 203*).

PAPAVERACEÆ.

ARGEMONE MEXICANA OCHROLEUCA. Lindl. Bot. Reg., t. 1343.
Suburbs of Merida, Jan. 27, 1865 (*Schott, 198*).

CRUCIFERÆ.

CAKILE MARITIMA Scop. Fl. Carn., ed. 2. ii, 35.
C. aequalis L'Her. Celestun, May 13, 1865 (*Schott, 376*).

Raphanus Raphanistrum Linn. Sp. Pl. 669.
"Eighteen inches high. A large number of plants came up in the plaza of Izamal in February, 1896, just after Orin's circus troupe had camped a week on the same place, and as they fed American and Mexican hay to their animals it is probable that the seed of this plant was introduced by them. Later the plant was taken under similar circumstances in Merida" (1064).

CAPPARIDACEÆ.

Capparis Cynocephallophora Linn. Sp. Pl., ed. ii, 721.
Xbayunak.
Merida, May 6, 1865 (*Schott, 351*).

CLEOME SPINOSA Jacq. Enum. Pl. Carib., 26.
Merida, April 13, 1865 (*Schott, 329*).

CRATÆVA GYNANDRA Linn. Sp. Pl. ed., ii, 636.
Merida (Cult ?), Dec. 1864; Feb'y 1865 (*Schott, 156*).

MORINGACEÆ.

MORINGA APTERA Gaert. Fruct., ii, 315.
Cult. Merida at Quinta del Obispo, March 1, 1865 (*Schott, 471*).

CRASSULACEÆ.

BRYOPHYLLUM PINNATUM (Lam.) S. Kurz. Jour. Assoc. Beng., xi. 52.
Cenote of Tunkax, March 26, 1866 (*Schott, 770*).

LEGUMINOSÆ.

ACACIA FARNESIANA (L.) Willd. Sp. Pl. iv. Par., ii, 1083.
"A common tree 30 feet high in the forests about Izamal, producing its fragrant orange-yellow flowers in October." (1010.) Our plant agrees with Schott's (*118*) Cuba (*A Cavenia* Bert.).

ACACIA SPADICIGERA Ch. & Sch., in Linnæa v. 594. **Subin.**
Merida, June and Sept., 1865 (*Schott, 392*). Xcholac common, bush 6 ft., Mar. 2, 1890. (*Stone, 248*, in Herb. Acad. Sci. Phila.)

ÆSCHYNOMENE AMERICANA Linn. Sp. Pl., 1061.
Yucatan loc. ignot. (*Johnson 45*[b]). Yucatan loc. ignot. (*Schott, 863*).

Æschynomene Americana depila var nov.
Characters of the species, except that the loments instead of being setose-hispid (*asperis. Hirsutis.* Sloane) are perfectly smooth.
"Herb 2 feet high, abundant in damp places along roads and in open lands near Izamal Oct." (955).
To this variety the following plants are referred: *Palmer* Acapulco *102* Manzanillo *901; Heyde 311, Heyde & Lux 6103* Guatemala; *Sintenis 5560* Porto Rico; *Hitchcock* Port Marant, Constant Spr., Lucea, Jamaica; *Lloyd* Jamaica *1050; Wilson* Jamaica *173. Rovirrosa 384* Tabasco; *Botteri* 363 Orizaba, *Skinner*, Guatemala; *Wright 124* or *125* Cuba; *Bernardi Hb.* San Domingo *184*; *Anderson* Trinidad; *Hayes* Panama *767; Eggers 202* St. Thomas; *Fendler 1779* Venezuela; *Ricksecker 133* St. Croix; and *Donnell-Smith 2283* Esquintla. In the following specimens Mr. Greenman notes that although the loments are more or less setose-hispid in the early stages they later become essentially glabrous; *Sintenis 374*[b] Porto Rico; *Pringle 2515* Jalisco, *Donnell-Smith 4160* Chupadero.
Dr. Rose in his enumeration of Dr. Palmer's 1890–91 Mexican collection (Contrib. U. S. Natl. Herb., 1. 321) calls attention to this form, *Palmer 901* Manzanillo.

ÆSCHYNOMENE FASCICULARIS Cham. & Schl. in Linnaea, v. 584.
"Ruins of Uxmal Sept. 16, 1865." (*Schott, 864* in Herb. U. S. Natl. Mus.) Merida June 11, 1865, and on road from Merida to Progreso May 7, 1865 (*Schott, 276*). "Shrubby, 3 feet high, common on roadsides near Tekax, in blossom September" (1126).

Amerimnon Brownei Jacq. Pl. Carib., 1760.
Dalbergia Amerimnum Benth. "A rare shrub in the forests about Izamal, its reddish-purple flowers appearing in June." (728).

Arachis hypogæa Linn. Sp. Pl., 741. Peanut.
"Herb 2 to 3 feet high, common about old farm lands near Izamal, where it blossoms in October" (997).

Bauhinia Cavanillei nom. nov. **Chacɔuludtok.**
Pauletia inermis Cav. Ic. t. 409, 1799; *Bauhinia inermis* (Cav.) Pers. Syn. i, 455, 1805 non Forsk. Fl. Ægypt, Arab. 85, 1775.
Nohcacab and vicinity, Nov., 1865, leaves sudorific, wood very flexible; Kabah, Nov. 24, 1865 (*Schott, 702*).

BAUHINIA LATIFOLIA Cav. Ic. v. 4, t. 405.
Tunkas, 4 feet high, flowers white; Ticul, 6 feet high, March 3 and 16, 1890 (*Stone, 228, 246 and 284,* in Herb. Acad. Sci., Phila.).

BAUHINIA PORRECTA Sw. Prod. Veg. Ind. Occ., 66.
Merida suburbs and Quinta Encalada, Nov. 29, 1864, and March 26, 1865 (*Schott, 8*).

Bauhinia splendens H. B. K., Nov. Gen. et Sp. vi, 319.
Yucatan loc. ignot., 10 to 15 feet high (*Johnson, 32, visa* in Herb. Torrey).

Bradburya Schottii sp. nov.
Caule scandente glabriusculo, foliis longe petiolatis 3-foliolatis, foliolis hastatis vel subhastatis mucronatis margine pilosis, stipellis geminiis linearis, pedicellis foliis æquantes solitariis 1–floris, bracteis ovato-lanceolatis calyce sæpe, longioribus calycis cupuliformis sub 5–fidis: lobis inferioris majusculis, superioris coalitis, lateralis triangularis. Leguminibus sessilis, longe apiculatis, costæ prominente percursis inter margine et pars media, semine compressa. Caule 10 pedales, foliis et pedicellis 5 poll. long., foliolis 2.5 poll. long., 2 poll. lat., flores 1.5 poll. long., leguminis 5 to 6 poll. long., 3 lin. lat. Ad Nohpat, Nov. 24, 1865 (*Schott, 718*). Rara in umbrosis Izamal, Nov. (930).

BRADBURYA VIRGINIANA (L. Bth) Kuntz Rev. Gen., i. 163.
Yucatan, *Johnson sine num.* specimen in Herb. Torrey Columbia Univ. "Vine, 20 feet, common in brush and forest lands about Izamal, its purple flowers appearing from August until December" (833). Yucatan, loc. ignot. (*Schott, 867*).

CÆSALPINIA BONDUCELLA (L.) Flem. As. Ris., xi, 159. *Cojones del Gato.*
Celestun, near the sea, May 13, 1865 (*Schott, 402*).

CÆSALPINIA PULCHERRIMA (L) Sw. Obs., 166.
Merida, "fragrant," July 25, 1865 (*Schott, 570*). Merida, Feb. 2, 1864 (*Schott, 178,* in Herb. U. S. Nat'l Mus.). Silam (681).

CALLIANDRA GRACILIS Klotz. Saünd. Refug. Bot., t. 294.
"An uncommon shrub 20 feet high, at Progreso" (1178). Merida, August, 1865 (*Schott, 844*).

CALLIANDRA PORTORICENSIS (Jacq.) Bth. Lond. Jour. Bot., iii, 99. **Pich.**
Near Hacienda Uislimchac, April 2, 1866, leaves and flowers undeveloped (*Schott, 769*).

Canavalia ensiformis (L). de C. Prod ii, 404. *Haba.*
Merida, Feb. 1, 1866, in fruit only (*Schott, 729*).

Cassia* sp.
"An interesting plant allied to *C. biflora* L, but indeterminable in the absence of fruits. The ash-colored twigs and very small leaflets do not correspond with any existing species of that group" (C. L. P.) Leaves alternate fascicled, common rachis 5–8 lines long, leaflets 3–jugal, 1–3 lines long, varying from mucronate or truncate to emarginate, stipules geminate, aristate; inflorescence solitary, sparse, from the terminal leaf fascicles; peduncle attenuate, longer than the leaf, jointed at about the middle, flowers large 4–7 lines long. Scrub lands near Sisal, May 6, 1865 (*Schott, 414*).

CASSIA BIFLORA Linn? Sp. Pl., 378.
"Probably this species, a comparison with the type is, however, necessary" (C. L. P.) Tizimin, March 28, 1866 (*Schott, 982*).

CASSIA EMARGINATA Linn. Sp. Pl., 346. **Xtuab.**
Without locality *Valdez* (7). North of Merida on the road to Progreso, April 7, 1865 (*Schott, 261*). Tunkas, tree 20 feet, flowers orange, March 3, 1890 (*Stone, 236*, in Herb. Acad. Sci., Phila.).

Cassia flavicoma H. B. K., Nov. Gen. et. Sp. vi. 366.
"A rare herb, 3 feet high, in the forests of Buena Vista Xbac, flowering in September" (1113).

Cassia hirsuta Linn. Sp. Pl., 540. **Salché.**
"A common herb, 4 feet high, in waste places and on farms and open lands about Izamal, producing its chrome-yellow flowers from July to December" (757, 1090).

Cassia leptocarpa hirsuta Benth. Trans. Linn. Soc. Lond., xxvii. 531.
"A shrub 6 feet high, common near cenotes about Izamal, the bright yellow flowers produced in October" (999); also "frequent in waste places about Izamal, where the plant often blooms several years in succession" (1016).

Cassia Liebmannii Bth. Trans. Linn. Soc., 27, 549.
Along road between Merida and Progreso, May 3, 1865 (*Schott, 299*).

CASSIA OCCIDENTALIS Linn. Sp. Pl., 377.
Nohcacab, Oct. 19, 1865 (*Schott, 975*).

* Species determined by Mr. C. L. Pollard.

Cassia polyphylla Jacq. Coll. iv. 104. Ic. Rar. t. 460.
"In mimosetis prope Sisal" (*Schott, 414*). "Shrubby 6 feet high, in brush lands about Izamal, the golden-yellow flowers appearing throughout the year" (391). Tekanto, shrub 3 feet high, Feb. 25, 1890 (*Stone, 197, 219,* in Herb. Acad. Sci., Phila.).

Cassia procumbens Linn. Sp. Pl., 380.
On the downs at Progreso, May 4, 1865 (*Schott, 290*).

Cassia racemosa Mill. Dict. ed. 8, n. 19. **Habinpec.**
"An abundant tree 60 feet high in brush and forest lands about Izamal, producing its large globular clusters of orange-yellow flowers from February to June" (354). Merida, Aug. 30, 1865 (*Schott, 974*). Tekanto, tree 20 feet high, flowers bright orange, Feb. 25, 1890 (*Stone, 215,* in Herb. Acad. Sci., Phila.).

CASSIA SERICEA Swz. Fl. Ind. Occ., 724.
Merida, June 11, 1865 (*Schott, 440*).

Cassia tristicula H. B. K., nov. Gen. et Sp., vi, 367.
Ruins of Uxmal, Sept. 1865 (*Schott, 976*).

Cassia villosa Mill. Gard. Dict., ed. viii, 4. **Salché.**
Suburbs of Merida, Nov. 25, 1864 (*Schott, 1*).

Clitoria Mexicana Lk. Enum. ii., 235.
"Vine 10 feet, common at Tekax" (1136).

Cracca bicolor Bull. Herb. Boiss ii., 444 t. xi.
"A common herb 4 feet high, in the forests of Buena Vista Xbac, in bloom in April" (1058).

CRACCA GREENMANII Millsp. Field Col. Mus., Bot. i. 299 t. xiii.
"An ascending herb 12 to 18 inches high, abundant along roadsides about Izamal, where it is almost without exception more or less browsed by cattle. The flowers appearing throughout the year are pale yellow with a purplish standard" (301). "Abundant near Merida" (*Veldez, 69*). Tekanto, Feb. 25, 1890 (*Stone, 205, 209,* in Herb. Acad. Sci. Phila.).

CRACCA VILLOSA CINEREA (L.) Kuntze, Rev. Gen. i. 174.
Merida, Aug. 3, 1865 (*Schott, 537*).

CROTALARIA PUMILA Ortega Hort. Matr. 23.
Flats about Nohpat and Nohcacab, Nov. 1865 (*Schott, 715*).
The legume in these specimens is shortly pediceled, not sessile as noted in description. Our specimens agree fairly well with Müller Herb. Mex., *664, 1745;* and especially with Buslamente y Rocha's *19* in the Torrey Herb.

Dalea diffusa Moric. Pl. Nouv. Am. 8. t. 6.
"Abundant in old fields and on town lots near Izamal, Nov. Height 4 feet. Flowers a very evasive royal-purple, which, seen at a short distance, seems a glimmer of light between blue and crimson, always attractive" (934).

In general habit our plant agrees with Pringle (*1793*) Jalisco, 1888, and Palmer (*507*) Acapulco 1894–5, except that in the former the leaflets are smaller, narrower, more crowded and nearer entire; and in the latter still smaller than our form or the Jaliscan. Leaves in our form 1.75 to 2.25 inches long, leaflets .4 inch long, .1 inch wide, with glandular punctæ strongly marked.

DESMANTHUS DEPRESSUS H. & B. Willd. Sp. iv. 1046. **Camba-pich.**
"Ten feet high, rare about Izamal, its white flowers appearing in October" (1018).

Diphysa Carthaginensis Jacq. Enum. Pl. Carib., 28.
About Merida, March 16, 1865 (*Schott, 247*), April 20, 1865 (*Schott, 505*, in Herb. U. S. Natl. Mus.).

Diphysa robinioides Benth. ex Bth. & Oerst. l. c. 11. **Ououc.**
"An abundant tree 60 feet high in the brush and forest lands near Izamal, where it opens its bright golden-yellow flowers in February while the leaves are immature" (344). Yucatan, without locality (*Valdez, 58*).

Erythrina Corallodendron Linn. Sp. Pl. 706.
Shrub 5 feet high, with sharp, mostly recurved prickles and crimson flowers, Tekanto, Feb. 25, 1890 (*Stone, 217*, in Herb. Acad. Sci. Phila.).

ERYTHRINA CORALLOIDES Mocq. & Sesse, ex de C. Prod. ii, 413.
Merida, Aug. 28, 1865 (*Schott, 615*). Loc. ignot. (*Schott, 921*).

Galactia multiflora Robn. Proc. Am. Acad. xxix, 315.
"Vine 20 feet, abundant in brush and forest lands about Izamal, producing its mottled flowers from September to March" (566). Also collected in conjunction with 498 in similar habitat.

INDIGOFERA ANIL Linn. Mant. 272. *Anil.* **Choh.**
"Shrubby, 4 to 8 feet high, abundant in all northeastern Yucatan, where it was at one time extensively cultivated, and whence Indigo was exported as late as 1885. To-day (1896) not one plantation exists in the neighborhood of Izamal, which place was once the center of its greatest production" (1057). Merida, Oct. 25, 1865 (*Schott, 883*).

Meibomia albiflora (Salzm) Kuntze, Rev. Gen. i, 197.
Yucatan, loc. ign. (*Johnson, 36*[b], *Visa* in Herb. Torrey, Columbia University).

Meibomia Neo-Mexicana (A. Gr.) O.K., Rev. Gen. i, 198. **Kintah.**
Chuburná, Oct. 10, 1865 (*Schott, 866*); herb 2 feet high, common in the forests of Tekax, September (1130); herb 10 inches, forests of Buena Vista Xbac (1118). Schott's plant and Gaumer's 1130 are glabrous, while 1118 is finely pubescent.

MEIBOMIA SCORPIURUS (Sw.) Kuntze, Rev. Gen., 198.
"Vine 4 feet, common in shady places near Izamal, October to January" (929).

Mimosa asperata Linn. Syst. ed x. 1312.
Yucatan, loc. ign. (*Johnson, 40, Visa* in Herb. Torrey, Columbia University).

Mimosa somnians Humb. & Bonpl. ex Willd. Sp. Pl. iv, 1036.
Yucatan, loc. ign. (*Johnson, 35*[b], *Visa* in Herb. Torrey, Columbia University).

MUCUNA PRURIENS (L.) de C., Prod. ii, 405.
Suburbs of Merida, Dec. 11, 1864, in fruit only (*Schott, 155*). "Vine 25 feet, common on brush lands and old fields, frequently also in forests about Izamal" (918).

Myroxylon peruiferum Linn. f. Suppl., 233. **Naba.**
Yucatan loc. ignot. (*Schott, 804,* in Herb. U. S. Natl. Mus.).

PAROSELA DOMINGENSIS (de C.).
Dalea Domingensis de C. Tekanto, Feb. 27, 1890, 3 feet high, flowers dull red (*Stone, 193,* in Herb. Acad. Sci. Phila.).

Phaseolus dysophyllus Benth. Pl. Hartw. 287.
"Vine 20 feet, common in the brush and forest lands about Izamal" (923).

PHASEOLUS LUNATUS Linn. Sp. Pl. 1016.
"Vine 10 feet, growth frequent in the forest lands about Izamal" (1059).

PISCIDIA ERYTHRINA Linn. Syst. ed. x, 1155. **Habi.**
Yucatan loc. ignot. (*Schott, 260*).

Prosopis juliflora (Swz.) de C. Prod. ii, 447. **Xcaɔimek.**
"Tree 40 feet high, common at the Port of Silam, producing its greenish-white flowers in April" (641).
Foliage much denser and leaflets larger than in the north Mexican and North American forms.

Pterocarpus Draco Linn. Sp. Pl. 1662. **Subinché.**
"Tree 80 feet high, common in forests about Izamal, developing its yellowish-brown flowers in February" (377).

RHYNCHOSIA MINIMA (L.) de C. Prod., ii., 385.
Ruins of Nohpat, Nov. 24, 1865 (*Schott, 718*).

Sesbania grandiflora Poir. Dict. vii., 127. *Pico de Flamingo.*
"Shrub 15 feet high, naturalized at the Port of Silam, producing its large crimson flowers in April" (670). Hacienda Chucá cult? March, 1866 (*Schott, 763*).

Sesbania macrocarpa Muhl. ex. Raf. Fl. Lud. 137.
"Herb 4 feet high, infrequent on waste lands about Izamal, flowering in September" (907).

Stylosanthes biflora (L.) B. S. P.
"Frequent at the margin of a large sarteneja on the Cantoila road northwest of Izamal" (908).

Tamarindus Indica L., Sp. Pl., 48. *Tamarindo.*
Merida, May 20, 1865 (*Schott, 356*).

OXALIDACEÆ.

Oxalis Berlandieri Torr. Bot. Mex. Bd., 41.
Hacienda, Cucul, Sept. 8, 1865 (*Schott, 625*).

Oxalis latifolia H. B. K. Nov. Gen. et Sp., v., 237.
Merida, June 16, 1865 (*Schott, 490*). Aguada and Cenote Nabulá, Aug. 8, 1865 (*Schott, 918*).

MALPIGHIACEÆ.

Bunchosa glandulosa (Cav.) de C. Prod., i., 581. **Sipché.**
"Shrub 20 feet high, common in the forests about Izamal, the bright yellow flowers produced from February to June" (411). Suburbs of Merida, April 14, 1865 (*Schott, 84*). Tekanto, 6 feet high, Feb. 27, 1890 (*Stone, 192*, in Herb. Acad. Sci. Phila.).

Gaudichaudia filipendula Juss. *infra* iii., 594. **Chililló-ak.**
"Common at Progreso, October" (1138).

Heteropterys Beecheyana A. Juss. Arc. Mus. Par., iii., 475.
In fruit only, Merida suburbs, Dec. 11, 1864 (*Schott, 158*).

Heteropteris Yucatanensis sp. nov.
Frutex, foliis opositis ovato-lanceolatis acutis e basi cuneatis integris, petiolis brevis eglandulosis, ramis ad apice tomentosis, paniculis terminalibus paucifloris, pedicellis ultra medium articulatis, bracteis deltoideis minimus, calycis 8-glandulis albo-tomentosis. Ramis brevis 4-6 poll. long, foliis 1-2.5 poll. long, .5-1 poll. lata; petiolis 1-3 lin. long. Frutex 15 pedalis, in terræ inutiliæ. Izamal, Sept. (816).

Stigmaphyllon lupulus Wats. Proc. Am. Acad., xxi., 461.
"Vine 15 feet, infrequent on old stone fences about Izamal, producing its bright lemon-yellow flowers from February to July" (408). Our specimens agree best with Pringle's *4102* from Tamasopo, San Louis Potosi, Mexico, 1892; the leaves varying from orbicular-cordate through ovate-cordate and simply hastate to deeply hastate-lobed. At Oitas, March 31, 1866 (*Schott, 771*). Tunkas, March 3, 1890, a woody climber (*Stone, 230*, in Herb. Acad. Sci. Phila.).

Tetrapteris inæqualis? Cav. Diss. 9, t., 260.
"Uncommon in forests and brush lands near Izamal" (972).

ZYGOPHYLLACEÆ.

TRIBULUS MAXIMUS Linn. Sp. Pl., 387.
Merida, Feb'y 8, 1865; and March 3, 1865 (*Schott, 25, 97*).

TRIBULUS TERRESTRIS CISTOIDES (L.) Oliver.
Downs at Progreso, April 6, 1865 (*Schott, 285*).

RUTACEÆ.

ZANTHOXYLUM PTEROTA H. B. K. Nov. Gen. et Sp., vi., 3. **Xic-ché.**
Merida, June 11, 1865 (*Schott, 450*).

SIMARUBACEÆ.

ALVARADOA AMORPHOIDES Liebm. Kjoeb. Vid. Med., 1853, 100.
Suburbs of Merida, Dec., 1864 (*Schott, 151*). Tekanto, tree 20 feet high (*Stone, sine num.*, in Herb. Acad. Sci. Phila.).

Simaruba glauca de C. Ann. Mus. Par., xvii., 323. **Xpaxakil.**
"Tree 100 feet, common in the forests about Izamal, producing its light green flowers in February" (439).

SURIANA MARITIMA Linn. Sp. Pl., 284. **Xpanoil.**
On the downs at Progreso, April 4, 1865 (*Schott, 306*).

BURSERACEÆ.

Protium heptaphyllum (Aubl.) Mch., Kjoeb. Vid. Med., 1873, 55. *Copal.* **Pom.**
Near the hacienda Cucá, March 26, 1866 (*Schott, 757*).

MELIACEÆ.

CEDRELA ODORATA Linn. Syst. ed., x., 940.
Merida (*Schott, 199*, in Herb. U. S. Natl. Mus.).

Trichilia spondioides Jacq. Pl. Carib., 20. **Xkulinsis.**
"Tree 40 feet high, common in the forests about Izamal, producing its pale green flowers in June" (712).

EUPHORBIACEÆ.

ACALYPHA ALOPECUROIDEA Jacq. Ic. Rar., iii., 19.
"Herb 16 inches high, common in shaded places near Izamal, flowering from July to Dec." (1017). Chocholá, Sept. 13, 1865 (*Schott, 44*).

ACALYPHA SETOSA A. Rich. Fl. Cub. Fan., ii., 204.
Merida, 1865 (*Schott, 480, 968*).

Acalypha Yucatanense sp. nov. **Miscax.**
Rhombifoliæ. Spicis ovoideo-cylindricis breviuscule pedunculatis, bracteis fœm. densis, 1-floris, late obovatis, hirsutis, 7-9 dentatis, dentibus triangularis acutis, calycis fœm. laciniis ovatis acutis hirsutis, ovario tuberculato et hispido, stylis 3 tenuibus, seminibus lævibus ecarunculatis. Herba pilosa 20 pollicaria, caule erectis simplicis vel inferne dubiter ramosis, limbus foliorum .5-1 poll. long, ovatis acutis crenulato-serratis e basi deltoideis, supra et infra pilosus, petiolum limbum longiorum. Ad Progreso (1176).

Codiæum variegatum Blume Bijd. 606.
Merida, at Quinta del Obispo, cult? March 6, 1865 (*Schott, 244*). Merida, cult. April 1887 (*Millspaugh, 24*).

Croton ciliato-glanduliferus Ortega, Hort. Matr. 51.
Tekanto, Feb. 27, 1890 (*Stone, 216*, in Herb. Acad. Sci., Phila.).

CROTON CORTESIANUS H. B. K. Nov. Gen. et. Sp., ii., 83.
Merida, Nov. 1864 (*Schott, 172*). Tekanto, shrub 5 ft., Feb. 25, 1890 (*Stone, 201*, in Herb. Acad. Sci., Phila.).

CROTON FLAVENS Linn. Pl. Jam. Pug. 28.
Cenoté de Oambula near Merida, Jan. 20, 1865 (*Schott, 172*).

CROTON LOBATUS Linn. Sp. Pl. 1427.
Ruins of Uxmal, Sept. 15, 1865 (*Schott, 955*).

CROTON HUMILIS Linn. Syst. ed x., 1276.
Cenote de Oambula, Merida, Jan. 20, 1865 (*Schott, 172*).

CROTON MARITIMUS Walt. Flor. Carol., 239.
Progreso, April 4, 1865 (*Schott, 209*, in Herb. U. S. Natl Mus.).

DALECHAMPIA SCANDENS Linn. Sp. Pl., 1423. **Xmoolcoh.**
Merida, June 30, 1865 (*Schott, 514*).

EUPHORBIA ADENOPTERA Bertol. Misc. Bot., iii., 436.
"Prostrate herb spreading one foot. Chaltumha road, October" (938). The densely floral and folial form with all characters closely aggregate.
"Semi-erect 10 inches high, Sitilpech road, November" (939). The more open ascending form. Sisal, Nov. 1865 (*Schott, 966*).

Euphorbia arenaria (Kth.) H. B. K. Nov. Gen., ii., 46.
Merida at Quinta del Obispo, Nov. 23, 1864 (*Schott, 15*, in part).

EUPHORBIA ARMOURII Millsp. Field Col. Mus., Bot., i., 28.

"Herb 18 inches high, uncommon, found only at the mouths of caves, and in very damp, shady places near Izamal, November" (975). Of larger growth, and with young parts more densely hirtellate than in the type. Merida, Cenoté Dambula, Dec. 14, 1864; Quinta del Obispo, Nov. 22, 1864 (*Schott, 76*).

EUPHORBIA BUXIFOLIA Lam. Encyc., ii., 421.

Seaside at Progreso, April 4, 1865 (*Schott, 308*).

Euphorbia dentata Michx. Fl. Bor. Am., ii., 211.

Merida, at Quinta del Obispo, Nov. 23, 1864 (*Schott, 15*).

Euphorbia Gaumerii sp. nov. **Sacio.**

Caule glabræ, lignosæ, scandenti, ternatim ramoso, ad articulationes incrassata, ramis longe articulatis plus minusive pilis strigosis sparsis, foliis oppositis ovato-lanceolatis obtusis vel acutis e basi cuneata, petioli quaterne longiori, glandulis stipularibus brevis, cymis ad articulationes ramularum corymboso-paniculatis, polycephalis, ad apice racemoso-paniculatis, tota laxiuscule, pedunculatis divaricatim dichotomis; foliis floralibus rarius minimis ovato-lanceolatis, involucris pedicillatis turbinatis adpresse lanatis, lobis spathulatis irreguliter dentato-fimbriatis, glandulis transverse sub-plicatis appendice triplo latiori orbiculata minute serrato-dentata, stylis brevibus, stigmatis crassis profunde bi-partitis. Capsula (juniori) glabra, profunde sulcata, coccis obtuse carinatis, semina. . . . . Frutex scandentis 10 pedalis. Folia 1-2 poll. longa, 9-12 lin. lata, cymæ laxiuscule oppositæ. Involucris lin. longa, duo-lineam lata. Species, prox. *colletioidea* Bth. (alectoroctonum). In sylvis ad Buena Vista Xbac (1073).

Euphorbia graminea virgata var. nov. **Onob kax.**

"Herb 2 feet high, common in moist places near Tekax, September" (1128).

Differs from the species in having longer and virgate branches, larger leaves, smaller involucral lobes, broader and blunt pointed appendages having a tendency to trilobation, and smaller seeds with fewer scrobiculæ arranged in two transverse lines, sharper rugæ, a sharper triangular apex, and no median line.

Euphorbia graminea lancifolia var. nov.

"Herb 18 inches high, rare, railroad bank, northwest of Izamal, November" (969).

Branches less quadrangular and not hairy on the angles, lower ovate leaves repand dentate, upper leaves lanceolate, the floral linear on attenuate branchlets. Glandular appendages ovate, seeds longer and more sharply quadrangular than in *var. virgata*, and with three lines of pits.

EUPHORBIA HETEROPHYLLA Linn. Am. Acad., iii., 112.

"Herb 3 feet high, along old fence rows and in old fields about Izamal, in flower from September to December" (903). The usual form of the species with cuneate-lanceolate irregularly serrate leaves, smooth capsules, and virgate sparsely leafy branchlets.

Merida, Sept. 30, 1865 (*Schott, 960*). "This plant is used for washing clothing."

Euphorbia heterophylla *forma.*

"Herb 4 feet high, common at Buena Vista Xbac, September" (1109).

A peculiar form in which the stem leaves are broadly lanceolate, entire or minutely and distantly dentate-serrate, strigosely short-hairy beneath; while those of the extended virgate branchlets are elongated-linear, quite resembling those of *var. graminifolia* Engelm. This form, but with some of the lower leaves, panduriform (*E. heterophylla cyathophora* (Jacq.) Boiss), was collected in 1879 at Fountaindale, Oregon, and Byron, Illinois, U. S. A., by the late Mr. M. S. Bebb.

EUPHORBIA HETEROPHYLLA CYATHOPHORA (K. and G.) Boiss de C. Prod., xv., 262.

Merida, 1865 (*Schott, 961*). This form of a very varied subspecies is completely vested with cyathiform leaves, from those of the base to the floral at the apex. Generally the basal leaves only distinguish the variety, the apical being either lanceolate or linear. The nearest counterpart of this plant was grown by Dr. Geo. Engelmann from seed sent him from Texas. (See sp. in U. S. Nat. Herb.).

Euphorbia lasiocarpa Klot. Nov. Act. xix, Supl. 414.

Merida, Aug. 23, 1865 (*Schott, sine num.*).

EUPHORBIA MAYANA Millsp. Field Col. Mus. Bot., i., 304.

"Open grounds at Buena Vista Xbac, April" (1039). Differs from the type collected near Izamal, only in having somewhat deeper and more irregular dentations in the margin of the appendages. Tekanto, shrub 5-8 feet high, branches short, horizontal, flowers yellowish-white, Feb. 25, 1890 (*Stone, 211*, in Herb. Acad. Sci. Phila.).

Euphorbia pilosula Engelm in litt.

"Herb 8 inches, common in the forests of Buena Vista Xbac, August" (1103).

EUPHORBIA PILULIFERA PROCUMBENS (de C.) Boiss. de C. Prod, xv., 21.

Merida, at Quinta del Obispo, Nov. 24, 1864 (*Schott, 56*). Merida, 1865 (*Schott, 967*). "Prostrate herb, abundant in shady places near Izamal, November" (1003).

Euphorbia pulcherrima (Grah.) Willd. Allg. Gart. ii., 27.
Merida, at Quinta del Obispo, Jan'y, 1866 (*Schott, 727*).

EUPHORBIA RHYTISPERMA Engelm in Kl. et Gke., p. 34.
"Waste grounds at Tekax, September" (1123). Larger and fuller growth than specimens collected at Izamal in 1895.

EUPHORBIA SERPYLLIFOLIA Pers. Ench. bot., II, 14.
Intermixed with E. pilulifera procumbens collected by *Schott, 967*, at Merida, 1865.

Euphorbia Xbacensis sp. nov.
Glabra, caule erectis, quadrangulatis dichotomis, foliis petiolatis integris ovato–lanceolatis acutis e basi cuneata, summis minute hirtis diminutis lanceolatis, involucris minimis extus adpresse hirtis, lobis quadratis fimbriatis, glandulis 4, transverse avatis, appendice angustissime orbiculatis, margine integris vel obsolete lobulatis, stylis profunde bipartitis apice crassis; capsulæ hirtis profunde sulcatis, coccæ obtuse carinatis, semina grisea, ovate, reguliter foveolate albo in profundis. Bipedalis. Folia inferiora nulla, media semipollicaria longa, bilinea lata, supra minima.
§ Cyttarospermum prox. *E. Acerensæ*. Rara ad Buena Vista Xbac (1108).

Gymnanthes lucida Sw. Prod. Veg. Ind. Occ., 96.
Merida, April 2, 1865 (*Schott, 283, 316*, in Herb. U. S. Natl. Mus.).

Hura polyandra Baill. Etud. gen. Euph., 543. *Jabilla.*
A small tree 40 feet high, common at Progreso (1144).

JATROPHA CURCAS Linn. Sp. Pl., 1429. **Xcacal ché.**
Merida, May 28, 1865 (*Schott, 395*).

JATROPHA URENS Linn. Sp. Pl., 1429. **Chaya.**
Cercanias, Merida, April 30, 1865, and November (*Schott, 496, 700*).

JATROPHA URENS STIMULOSA (Michx.) Müll. de C. Prod., xv., 1101. **Xoat.**
Merida, Nov. 5, 1865 (*Schott, 700*). Merida, in mimosetis et cercanias, April 12, 1865 (*Schott, 496*). "Herb 6 feet high. Common everywhere. Buena Vista Xbac, April" (1069). "The sting causes pain instead of burning or itching." Tunkas common, 4 feet high, March 3, 1890 (*Stone, 232*, in Herb. Acad. and Sci. Phila.).

Manihot Carthaginensis (Jacq.) Muell. D. C. Prod., xv., 1073.
Xhac ché.
"Herb 8 feet high, common along roads, and on waste lands, near Izamal" (1142). Leaflets nearly panduriform, strongly apiculate. Merida, June 25, 1865 (*Schott, 518*). The same panduriform lobed form.

Manihot Manihot (L.) Cock. Bull. Torr, xix., 1892. *Jucca.*
Cultivated near the ruins of Kabah, Nov. 26, 1865 (*Schott, 957*). A form with 7 narrowly lanceolate, almost linear, leaf lobes, not in flower or fruit.

Manihot rhomboidea Muell. Arg. in Linn., 34, 205. **Chaché.**
Merida, July 11, 1865 (*Schott, 518*). Dr. Schott spells the Maya name Xcaxe.

PEDILANTHUS ITZÆUS Millsp. F. Col. Mus. Bot., 1, 305. **Yaxhalal ché.**
Merida, April 10, 1866, in full leaf (*Schott, 552*).
(This species also appears in U. S. Natl. Herb., from Santa Domingo, collected by Wright, Parry and Brummel, without number.)

RICINUS COMMUNIS Linn. Sp. Pl., 1430.
Merida, Feb'y 13, 1865 (*Schott, 241*). Merida, April 14, 1887 (*Millspaugh, 46*).

TRAGIA NEPETÆFOLIA Cav. Ic., vi., 37. **Popox.**
Merida, Aug. 20, 1865 (*Schott, 588*); February 11, 1865 (*Schott, 448*). "The Mayas rub their limbs with this plant when suffering pain."

ANACARDIACEÆ.

Anacardium occidentale Linn. Sp. Pl., i., 283. *Maranon.*
Hacienda Tahchebilá, Cult? March 31, 1866 (*Schott, 765*).

Astronium sp.
"A rare tree 100 feet high." In fruit without leaves, Xcholac, March (582).

MANGIFERA INDICA Linn. Sp. Pl., 200. *Mango.*
Merida. Cult? March 14, 1866 (*Schott, 815*). In these specimens the panicle is not pubescent, indeed only very sparsely hairy.

Spondias lutea Linn. Sp. Pl., Ed. ii., 613. *Ciruela.* **Mompin.**
Suburbs of Merida, cult? April 4, 1865 (*Schott, 797*).

Spondias purpurea Linn. loc. cit. *Ciruela.* **Chiabal.**
"Tree 30 feet high, very abundant in cultivation, the bright-pink flowers appearing in March" (432). "*Juntura*, flowers red" (704).

CELASTRACEÆ.

Maytenus phyllanthoides Benth. Bot. Voy. Sulph., 54.
"Shrub 10 feet, abundant at the port of Silam, April" (643).

HIPPOCRATEACEÆ.

Hippocratea obcordata Lam. Illust., i., 100.
Downs at Progreso, April 6, 1865 (*Schott, 317*).

SAPINDACEÆ.

Bumelia buxifolia Willd. H. B. K. Nov. Gen. et Sp. t., 147.
Downs at Progreso, April 7, and Celestun, May 12, 1865 (*Schott*, *313*).

Bumelia glomerata Griseb. Mem. Am. Ac., 1863, 518. **Puɔmucuy.**
Suburbs of Merida, April 14, 1865 (*Schott*, *341*). "Shrub 15 feet high, abundant in brushlands about Izamal, producing its cephalic whorls of greenish-yellow flowers from March to April" (473).

Bumelia microphylla Griseb Plant. Cat. Cub., 165.
Merida, March, 1865 (*Schott*, *341*). "Shrubby, 10 feet high, common on brushlands near Izamal, April" (559, 469 in part).

Paullina fuscescens glabrescens Radlk. Mon. Sap., 56. **Kexak.**
About Merida, Dec. 10, 1864 (*Schott*, *10*, in Herb. U. S. Natl. Mus.).

Serjania polyphylla Poir. ex. Steud. Nom., ed. 2, ii., 568.
About Merida, Dec. 10, 1864 (*Schott*, *10*, part of the sheet upon which the previous species is mounted in Herb. U. S. Natl. Mus.).

RHAMNACEÆ.

Colubrina ferruginosa Brong. Ann. Soc. Nat. x. 369. **Yax-Pukim.**
A small tree 30 feet high, Mascab Pixoy, Jan. 22, 1895 (*Armour Exped.*, *157*, *181*). "Small tree 30 feet high, abundant in scrub and brushlands about Izamal" (355). Suburbs of Merida, **"Oulubmay,"** April to November (*Schott*, *13*, *331*).

Gouania Domingensis Linn. Sp. Pl. 1663. **Xomak.**
"Vine 30 feet, infrequent in the forests about Izamal, November" (959). Merida, Nov., 1865 (*Schott num. amiss. 658*, in Herb. U. S. Natl. Mus.).

Karwinskia Humboldtiana? Zucc Nov. Stirp., i., 351.
"Tree! 30 feet high, common from Merida to Progreso" (1171). Although our plant seems to properly fall under this genus and species, yet the ovary is 2-celled with each cell 2-ovuled, and the leaves, though opposite, are not pellucid-dotted.

TILIACEÆ.

CORCHORUS SILIQUOSUS Linn. Sp. Pl. 746.
"Shrub 3 feet high, common at Progreso" (1168). Aguada de Uxmal, Sept. 17, 1865 (*Schott*, *104*, in Herb. U. S. Nat. Mus.).
Differs from the description in the following characters: More shrubby than suffrutescent; branchlets with a double hairy line; flowers single, axillary, scattered along the branches.

Lueha speciosa Willd. Geo. Nat. fr. Neu. Schr. iii., 410. **Chacah.**
At the Hacienda Chacah near Ticul, Oct. 21, 1865 (*Schott*, *679*).

Muntingia Calabura Linn. Sp. Pl. 728. *Capolin.*
"Hacienda San Rafael de Xteppen southeast of Uman, Aug., 1865. Hacienda Saragossa, Sept. 9, 1865" (*Schott, 554*). "Tree 30 feet high, common at Progreso and Merida" (1163).

MALVACEÆ.

Abutilon crispum Sweet, Hort. Brit. ed. i., 53.
"Merida at Quinta del Obispo, Nov. 20, 1864" (*Schott, 83*, in Herb. U. S. Natl. Mus.); suburbs of Merida, Dec. 3, 1864" (*Schott, 167*). "Herb 5 feet high, common on open lands near Izamal, flowering from August to December" (872). Calcehtoh, March 11, 1890, flowers yellow (*Stone, 271*, in Herb. Acad. Sci., Phila.).

Abutilon incanum (Lk.) Sweet, Hort. Brit. ed. i., 53.
"Herb 4 feet high, abundant in old fields and waste places near Izamal" (954). Our form agrees best with Palmer's *1281* from Armeria, Mex., 1891.

Abutilon sidoides Hemsl. Diag. Pl. Nov. 24. **Xacmixbil.**
"Shrubby, 4 feet high, common at Tekax, September" (1133). Our specimens differ from the type in having somewhat longer petioles, and in being more branchy like Pringle's *4583* Jalisco, 1893.

ANODA HASTATA Cav. Diss. i., 39.
Merida, Nov. 28, 1864 (*Schott, 12*). Hacienda Saragossa, Sept. 8, 1865 (*Schott, 353*, in Herb. U. S. Natl. Mus.).

Anoda parviflora Cav. Ic. v., 19. **Oaiunoai.**
"Herb 3 feet high, abundant in old fields near Izamal, producing its pale-yellow flowers from September to October" (821).

Anoda triangularis de C. Prod. i., 459.
Fence rows in the suburbs of Uman, April, 1887 (*Millspaugh, 19*).

Gossypium Barbadense Linn. Sp. Pl. 975. **Xchup.**
Suburbs of Merida, Aug. 24, 1865 (*Schott, 602*) Calcehtoh, March 11, 1890 (*Stone, 269*, in Herb. Acad. Sci. Phila.).

Gossypium herbaceum Linn. Sp. Pl. 975. *Algodon.*
"Herb 10 feet high, often becoming a 15 foot shrub. Extensively cultivated in Yucatan during the civil war in the United States, now only on a small scale for domestic use" (935). Our specimens are of the form *G. hirsutum L.* and agree with Berlandier's Texano-Mexican *313*, and Simpson's Florida specimens of 1889.

Gossypium religiosum Linn. Syst. ed. xii. 642.
Suburbs of Merida, August, 1865 (*Schott, 602*).

Hibiscus elatus Sw. Fl. Ind. Occ. ii, 1218. **Xholó.**
Hacienda Guayalú, cult? Sept. 19, 1865 (*Schott, 629*).

Hibiscus mutabilis Linn. Sp. Pl. 977. *Flor de Cortejo.*
Cultivated at Merida, Feb. 16, 1866 (*Schott, 744*).

HIBISCUS TUBIFLORUS Moc. & Sesse, de C. Prod. i. 447.
Tunkas, 3 to 4 feet high, flowers rose-red, March 3, 1890 (*Stone, 257*), in Herb. Acad. Sci. Phila.).

Malachra capitata Linn. Syst. ed. xii. 458.
At the Aguada de Uxmal, Sept. 17, 1865 (*Schott, 883*).

Malvastrum tricuspidatum A. Gray, Pl. Wright i. 16. *Malva. M. Coromandelianum* Garcke. "Shrubby, 4 feet high, abundant in old fields near Izamal, October" (1020). Our plant agrees with that of P. Sintenis from Porto Rico.

MALVAVISCUS ARBOREUS Cav. Diss. t. 48.
Two quite distinct forms of this species are found in our region: The one with small obtuse slightly and irregularly crenate leaves (½ to 1¼ inch long by ⅜ to ½ inch broad), collected only along the coast. (Gaumer, Silam, April, 1895, *Schott* Downs at Progreso, April, 1865, *271*); the other with large acute crenate leaves (1 to 3 inches long by ¾ to 2 inches broad), found inland (Gaumer 580, *Millspaugh, Armour Exped. 60, Schott.* Merida, Jan. 1865, *177;* and Ruins of Uxmal, Sept. 15, 1865, *643*). The leaves of the form from the coast have a few scattered pilose hairs beneath, those of the inland form scattered stellate hairs, while in the specimens from the more humid and higher region of Uxmal the leaves are densely woolly.

SIDA ACUTA CARPINIFOLIA (L.f) K. Schum Fl. Braz. Fasc. cix. 326.
"Herb 4 feet high, frequent in brushlands about Izamal (902); and in the forests about Buena Vista Xbac, April" (1054). Tekanto common, Feb. 27, 1890 (*Stone, 194*, in Herb. Acad. Sci. Phila.).

Sida anomala St. Hil. Fl. Bras. Mer., i. 177.
Merida, Sept. 25, 1865 (*Schott, 116*, in Herb. U. S. Natl. Mus.).

SIDA SUPINA PILOSA (Cav.).
S. pilosa Cav. Diss. i. 9. t. 8. Tekanto, Feb. 27, 1890 (*Stone, 196*, in Herb. Acad. Sci. Phila.).

Wissadula mucronulata A. Gray, Bot Mex. Bound 39. **Ounikax.**
"Herb 5 feet high, common in old fields about Izamal, October" (968). Our plants agree with Pringle *4603* Jalisco, Mex., which have, however, a much lighter upper surface to the leaves.

Wissadula tricarpellata Robn. & Greenm.
"Herb 2 feet high, common in open lands at Buena Vista Xbac, April" (1056).

BOMBACACEÆ.

CEIBA CASEARIA Medic. Malv., 16.
Merida, Feb. 6, 1865 (*Schott, 204*). Tekanto, March 9, 1890 (*Stone, 224*, in Herb. Acad. Sci. Phila.).

CEIBA SCHOTTII Brit. & Baker. Jour. Bot. xxxiv, 173.
Merida, Aug. 1865 (*Schott, 205*), Type collection.

PACHIRA FASTUOSA (Sesse) Decne. Fl. des Serres, xxiii, 48.
Merida, Sept. 1865 (*Schott, 205*).

QUARARIBEA FIELDII Millsp. Field Col. Mus. Bot. i. 309. **Maha.**
Fine fruiting specimens from Merida at Quinta del Obispo Nov. 18, 1864 (*Schott, 18*). "The flowers are used to flavor chocolate."
Fruit ovoid rusty-downy, its lower two-thirds enveloped by the persistent calyx, the apex truncate-apiculate, 1¼ inches long, ¾ inch diameter.

STERCULIACEÆ.

AYENIA PUSILLA Linn. Syst. ed. x, 1247.
"Herb 2 feet high. Abundant in open lands about Izamal, April" (1061).

Ayenia sp. nov? (**Yucatanense**).
"Herb 4 feet high. Common in forests at Buena Vista Xbac. In fruit but without flowers, April" (1052).
Foliis longe petiolatis ovato-lanceolatis, acuminatis e basi truncatis, grosse et irreguliter dentatis, strigose hirsutis capsula dense hirsutis, longi pedunculatis, semina orbiculatis rufo-maculatis. Folia 1½–2½ poll. long. 5-10 linea lata; petiola 1–1½ poll. long.

Buettneria Carthaginensis Jacq. Stirp. Am. Piot. 41. **Xtexak.**
"Shrub 15 feet high, common in forests about Izamal, putting forth its light-green flowers in August" (786). Our plants are much nearer the Bolivian form than that of other Mexican stations.

GUAZUMA POLYBOTRYA Cav. Ic. iii. 51. **Pixoy.**
Suburbs of Merida, August to December, 1865 (*Schott, 148*). Merida, April 14 (*Schott, 342*, in Herb. U. S. Natl. Mus.).

HELICTERES BARUENSIS Jacq. Enum. Pl. Carib., 30. **Outup.**
Merida, June 14, 1865 (*Schott, 397*). (*792* in Herb. U. S. Natl. Mus.)

MELOCHIA TOMENTOSA Linn. Syst. Ed. x, 1140.
Merida, December, 1864 (*Schott, 608*). Ticul, flowers blue, March 12, 1890 (*Stone, 276*, in Herb. Acad. Sci., Phila.).

STERCULIA CARTHAGINENSIS Cav. Diss. vi, 353.
Borders of brushlands at Uman. April, 1887 (*Millspaugh, 8*).

Triumfetta semitriloba Jacq. Enum. Pl. Carib. 22. **Ochmul.**
Tizimin, March 28, 1866 (*Schott, 759*). "Shrub 10 feet high, infrequent in the brushlands aboul Izamal, November" (1005).

WALTHERIA AMERICANA Linn. Sp. Pl. 941.
W. Indica L. in prev. contrib. Charcos de Celestun, May 13, 1865 (*Schott, sine num.*). Calcehtoh, March 11, 1890 (*Stone, 268*, in Herb. Acad. Sci., Phila.).

GUTTIFERÆ.

Clusia flava Jacq. Enum. Pl. Carib., 34. **Chunup.**
Hacienda de Chablé, August 8, 1865, used as a remedy for syphilis (*Schott, 539, 924*).

BIXACEÆ.

Amoreuxia palmatifida Moc & Sesse de C. Prod ii, 638.
"Shrub 4 feet high, frequent at Progreso" (1155).

MAXIMILIANA HIBISCOIDES (H. B. K.) Kuntze Rev. Gen. 44.
Between Oitas and Tizimim, March 23, 1866 (*Schott, 752*). Tekanto, March 9, 1890 (*Stone, 223*, in Herb. Acad. Sci., Phila.).

FLACOURTIACEÆ.

Samyda serrulata Linn. Sp. Pl. 558. **Puus Mucuy.**
Near Merida, April 22, May 1, June 25 and 29, 1865 (*Schott, 603*). "Tree 25 to 40 feet high, common in brushlands near Izamal, developing its white flowers from May to October" (699, 858, 1063).

TURNERACEÆ.

TURNERA DIFFUSA APHRODISIACA (Willd) Urban, Jahrb. Bot. Gard. Berol ii, 127.
Hacienda Saragossa, Sept. 9, 1865 (*Schott, 889*).

PASSIFLORACEÆ.

PASSIFLORA FOETIDA Linn. Sp. Pl. 959.
P. Ciliata Dryand. Ait. Hort. Kew. ed. 1, iii. 310. Calcehtoh, March 11; Ticul, growing over the church, March 16, 1890. Flowers white, filaments purple, pistils crimson, stigma green (*Stone, 270, 286*, in Herb. Acad. Sci., Phila.).

Passiflora pulchella H. B. K., Nov. Gen. et Sp. ii, 134?
"Vine 10 feet, uncommon in forests near Izamal, blossoming in September" (796).

Passiflora suberosa Linn. Sp. Pl., 958.
Merida, October 10, 1865 (*Schott, 898*).

CARICACEÆ.

CARICA PAPAYA Linn. Sp. Pl., 1036.
Cult ? Quinta del Obispo, Merida, March, 1865 (*Schott, 245*).

LOASACEÆ.

GRONOVIA SCANDENS Linn. Sp. Pl., 202.
Merida, September 1, 1865 (*Schott, 620*).

LYTHRACEÆ.

PUNICA GRANATUM Linn. Sp. Pl., 676.
Cult ? Merida, May 22, 1865 (*Schott, 40*).

RHIZOPHORACEÆ.

RHIZOPHORA MANGLE Linn. Sp. Pl., 634.
Yucatan ad Manglares, Nov. 9, 1864 (*Schott, num. amiss.*).

MYRTACEÆ.

PIMENTA OFFICINALIS Lindl. Coll. Bot. t. 19. *Pimiento.*
Myrtus Pimenta L., *P. vulgaris* Wight. Merida, cult ? April 30, 1865 (*Schott, 358*).

PSIDIUM GUAJAVA Linn. Sp. Pl. ed. i, 470. *Guayaba.*
Cult. Merida, March 23, 1865 (*Schott, 257*).

COMBRETACEÆ.

BUCERAS CATAPPA (Linn.) Hitch. Mo. Bot. Gard. 1893, 85. *Almendra.*
Terminalia Linn. Hacienda San Rafael Xteppen, August 7, 1865; Hacienda Cucul, near Merida, September 8, 1865 (*Schott, 550, 921*); Ticul, March 13, 1890 (*Stone, 280,* in Herb. Acad. Sci., Phila.).

Conocarpus sericea Forst., Don. Gen. Syst., ii, 662. **Xtabché.**
Botoncillo.
"A densely silky sericeous shrub 20 feet high, abundant on the borders of all salt marshes along the coast. Progreso" (1164) (*Schott, 266, 267*). This form is distinct from *C. erecta* in all its characters and should (according to our specimens) be kept apart.

Gyrocarpus Americanus Jacq. Select. Am. 282. **Xkis.**
"Tree 80 feet high, common in the forests about Izamal, producing its large cymose greenish flowers from March to June" (491, 530). Yucatan loc. ignot. (*Schott, 530,* in Herb. U. S. Nat'l Mus.).

UMBELLIFERÆ.

Hydrocotyle prolifera Kellogg, in Proc. Calif. Acad. i, 15.
"Herb 4 inches high, abundant about the aguada of Xcholac, February" (445). Our specimen agrees with M. Bourgeau's *400* from the banks of a canal near Mexico City.

LENNOACEÆ.

Lennoa cærulea Fourn. Bull. Soc. Bot. Fr., xvi, 11.
"In the forests of Buena Vista Xbac, September" (1116).

MYRSINACEÆ.

JACQUINIA ARMILLARIS Jacq. Enum. Pl. Carib., 15. **Muyché.**
Seaside at Sisal, May 15, 1865 (*Schott, 357*). The same unarmed form described on p. 312, Contrib. ii; there is, however, an unnumbered specimen in Herb. U. S. Nat'l Mus., collected at Progreso, April 4, 1865, by Dr. Schott, in which the leaves are characteristically armed at the tip.

PLUMBAGINACEÆ.

Plumbago Capensis Thunb. Prod. Pl. Cap. 33. *Embelezo.*
"Shrub 4 feet high, in general cultivation in towns on the peninsula" (1151).

PLUMBAGO SCANDENS Linn. Sp. Pl., 215. **Xcabaac.**
Merida, June, 1865 (*Schott, 612*); Merida, Nov. 14, 1864 (*Schott, 29*, in Herb. U. Nat'l Mus.).

SAPOTACEÆ.

ACHRAS SAPOTA Linn. Sp. Pl., 470. **Ya.**
Merida, cult? March 23, 1865 (*Schott, 258*).

CHRYSOPHYLLUM CAINITO Linn. Sp. Pl., 192. *Cainito.*
"Tree 30 feet high, common in the forests about Izamal, producing its cream-colored flowers in August" (896). Cultivated at Merida, Quinto del Obispo, Dec. 24, 1864 (*Schott, 72*).

Dipholis salicifolia A. de C., de C. Prod. viii, 188. **Xac-chum.**
"Tree 40 feet high, rare in the forests of Buena Vista Xbac, April" (1047). Flowers more densely crowded than the Florida U. S. form, and than *305* Flora Domingensis of Wright, Parry & Brummel.

EBENACEÆ.

Diospyros Ebenum Kóen, Phys. Salsk. Hand. i, 176. **Tauch Ya.**
Sapote Negro. Hacienda de Chablé (cult?) August 8, 1865 (*Schott, 542*).

APOCYNACEÆ.

Echites biflora Jacq. Enum. Pl. Carib., 13.
In mangrove thickets at Sisal, Nov. 9, 1865 (*Schott, 812*).

ECHITES SUBSAGITTATA Ruiz & Pav. Fl. Peru., ii, 19.
E. microcalyx A. de C., Hacienda Saragossa, September 8, 1865 (*Schott, 674*).

Echites torulosa Linn. Sp. Pl. ii, 307.
"Vine 10 feet, common in brushlands about Izamal, producing its lemon-yellow flowers in August" (806, 883).

Echites umbellata Jacq. Enum. Pl. Carib., 13.
Sisal, May 9, 1865 (*Schott, 38*).

Macrosiphonia Berlandieri A. Gray, Syn. Fl. Am. ii, i, 83.
Yucatan, loc. ignot. et sine die (*Schott, sine num.*).

Nerium Oleander Linn. Sp. Pl. 305. *Narciso.*
Yucatan loc. ign. (*Valdez, 8* "Colorada, e blanca"). Probably from cultivated plants at Merida. Merida. Cult. April, 1865 (*Schott, 813*).

Plumeria pudica Jacq. Enum. Pl. Carib., 13.
Cult? Camino de Sisal near Pozo del Toro, May 7, 1865 (*Schott, 428, 429*).

PLUMERIA RUBRA Linn. Sp. Pl., 209.
Cult? Merida, April to August, 1865 (*Schott, 321, 323, 324* flor rubro; *670* flor alba). All of these labels are associated with one specimen of the above species.

RAUWOLFIA HETEROPHYLLA Willd. ex. Roem. & Schult. Syst. iv, 805.
Suburbs of Merida, April 14, 1865 (*Schott, 431*).

Stemmadenia insignis Miers. Apocyn. S. Am., 76. *Laurel.*
"Merida" (*Schott*, type *430*). Merida, April, 1887 (*Millspaugh, 27*). Only seen in cultivation in the public parks. The specimens in Herb. Schott bear a close resemblance to *Tabernæmontana citrifolia* Linn.

TABERNÆMONTANA ACAPULCENSIS Miers Apocy. S. Am., 57. **Uoupek.**
"Merida, March, 1865 (*Schott*, type *432*). Along fence rows, campo beyond Uman, April, 1887 (*Millspaugh, 34*).

THEVETIA NEREIFOLIA Juss. ex. Steud. Nom. ed. 2, ii, 680.
Suburbs of Merida, April 11, 1865 (*Schott, 321*). Quinta del Obispo (*Schott, sine die sine num.*).

Thevetia spathulata sp. nov.
Foliis ovato-spathulatis vel (junior) oblonceolatis obtusis vel subacutis, margine integris, supra glabris et nitidis obsolete reticulato-venosis nervis lateralibus, centrali obliquus subtus pallidis glabris, cyma terminalia laxiflora glabra, bracteis traingulo-lanceolatis, deciduis, lobis calycinis lanceolatis mucronato-acuminatis glabris, tubo corollæ vix brevioribus. Frutex 20 pedalis Ramuli teretes glabris, cortex albo-chartaceis. Folia 2–4 poll. long., 6–14 lin. lat., petiolo 2–4 lin. long. Cymæ folio subsequantes. Flores aurea-viridis 2 poll. long., pedicellis poll. long. Lobi calyces 5 lin. long., 2 lin. lat. Tubus corollæ intus apice strigose hirtis, appendicibus 5 cornatiformis. Affin. *T. cunifoliæ.*

Although there is a great variation in the shape of the juvenile leaves—the mature only being constant and typical—I have little hesitancy in referring the following young plants to this species, *Schott, 321*, Merida, 1865; *Gaumer, 7*, Cozumel Island, 1885 "new species?" (Oliver); and Gaumer, 678, "common at the Port of Silam, April, 1895." Road beyond Xcholac, 15 feet high, flowers lemon-yellow, March 2, 1890 (*Stone, 255*, in Herb. Acad. Sci., Phila.).

VINCA ROSEA Linn. Syst. ed x, 944.
Suburbs of Merida, common as a roadside weed. April 14, 1887 (*Millspaugh, 44*).

ASCLEPIADACEÆ.

ASCLEPIAS CURASSAVICA Linn. Sp. Pl., 314.
"Herb 3 feet high, abundant in damp situations near Izamal, its yellow flowers produced throughout the year" (556). Suburbs of Merida, Jauuary 5, 1865 (*Schott, 182*).

METASTELMA SCHLECHTENDALII Decne. in de C. Prod. viii, 513.
Tekanto, Feb. 25, 1890 (*Stone, 203*, in Acad. Sci., Phila.).

CONVOLVULACEÆ.

EVOLVULUS ALSINOIDES Linn. Sp. Pl. 392.
"Herb 18 inches high, common in the forests of Buena Vista Xbac, April" (1067). Merida, June, 1865 (*Schott, 64*).

IPOMŒA BONA-NOX Linn. Sp. Pl. ed. ii, 228.
Nohcacab, Oct. 20, 1865 (*Schott, 684*).

Ipomœa cissoides Griseb. Fl. Brit. W. Ind. 473.
"Vine 10 ft., abundant in old fields about Izamal, producing its satiny-white flowers in November" (982). Range between Sacacab and Tikul, Oct. 20, 1865 (*Schott, 905*).

IPOMŒA COCCINEA Linn. Sp. Pl. 228.
"Vine 20 ft., common in old fields about Izamal, producing its bright red flowers from October to December" (981, 990).

IPOMŒA FASTIGIATA Sweet Hort. Brit. ed. i, 288.
"Vine 15 ft., common in old fields near Izamal" (915).

Ipomœa hederacea Jacq. Coll. i, 124.
"Vine 20 feet, common in towns and the fields about Izamal, blossoming in October and November. Flowers deep sky-blue changing to rose on drying" (919, 983). Merida, 1865. (*Schott, 906*).
"Vine 30 feet, rare at Buena Vista Xbac; flowers bright rose-pink" (769). In Gaumer's 919 and 983 the flowers are large and long peduncled and the leaves 7 inches broad by 5 inches long,

and scattered strigose-hairy. In Schott's 906 the leaves are small, about 2 by 1½ inches, strigose-hairy like the preceding. In Gaumer's 769 the leaves are small as in Schott's form, but are densely covered both above and beneath with long closely-apressed silky hairs.

Ipomœa pentaphylla (L.) Jacq. Coll. ii, 297. **Sooac**
"Vine 20 feet, abundant on roadsides about Izamal, producing its white flowers in October" (985). Merida, Nov. 7, 1865. (*Schott, 26*).

Ipomœa puncticulata Benth. Bot. Voy. Sulph. 136.
"Vine 20 feet, abundant in towns and fields, producing its reddish-purple flowers from September to February" (329).

Ipomœa sinuata Orteg. Hort. Matr. Dec. 84.
"Vine 10 feet, frequent in brushlands and cornfields about Izamal" (1093)

Jacquemontia abutiloides Benth. Voy. Sulph., 34.
"Mountains between Hacienda Sacacal and Ticul, Oct. 20, 1865 (*Schott, 681*). Tekanto, Feb. 1890 (*Stone, 206*, in Herb. Acad. Sci. Phila.).

Jacquemontia pentantha G. Don., Gen. Syst. iv, 283. **Yaxhal.**
"Vine 10 feet, common in brushlands about Izamal, October to January" (917). Suburbs of Merida, Nov. 14, 1864. (*Schott, 344*). Tunkas, March 3, 1890 (*Stone, 231, 235*, in Herb. Acad. Sci. Phila.).

Jacquemontia tamnifolia Griseb. Fl. Brit. W. Ind. 474.
Vine 20 feet, common in the forests of Buena Vista Xbac, Aug. (1121).

BORRAGINACEÆ.

Cordia dodecandra de C. Prod. ix, 478.
Thirty feet high, flowers vermilion with a tinge of orange; Tekanto, Feb. 27, 1890 (*Stone, 198*, in Herb. Acad. Sci. Phila.).

Cordia gerascanthoides H.B.K. Nov. Gen. et. sp. iii, 69. **Bohom.**
"Tree 100 feet high, common in forests where it blooms in April. Flowers very profuse, aromatic and durable. This tree yields one of the most valuable timbers of the country, much used in wagon-making and wherever strength and elasticity are required. Buena Vista Xbac" (1066). Aguada San Antonio, Xcanchacan, March 1, 1866 (*Schott, 745*).

Cordia globosa (L.) H. B. K., Nov. Gen. et Sp. iii, 76.
Merida, 1865 (*Schott, 970.*) "Shrub 12 feet high, rare, Kantunil road near Izamal, producing its white flower in June" (745). "Shrub 30 feet high, in brushlands near Izamal, Sept." (801).

CORDIA SEBESTENA Linn. Sp. Pl., 190. **Kopté**
Merida, Dec. 14, 1864 (*Schott, 173*); Sisal, May 10, 1865 (*Schott, 386*).

EHRETIA TINIFOLIA Linn. Syst. ed. x., 936. *Roble.*
Merida, Apr. 14, 1865 (*Schott, 800*).

HELIOTROPIUM CURASSAVICUM Linn. Sp. Pl., 130.
Ticul, March 12, 1890 (*Stone, 275*, in Herb. Acad. Sci., Phila.).

Heliotropium fruticosum Linn. Syst. ed. x, 913.
Merida, June, 1865 (*Schott, 364*).

HELIOTROPIUM INUNDATUM Sw. Prod. Veg. Ind. Occ., 40.
Merida, Aug. 21, 1865 (*Schott, 968*).

HELIOTROPIUM PARVIFLORUM Linn. Mant. ii., 201.
Merida, January 4, 1865 (*Schott, 175*).

TOURNEFORTIA GNAPHALODES R. Br. Prod., 496.
Downs at Progreso, April 3, 1865 (*Schott, 305*).

VERBENACEÆ.

AVICENNIA NITIDA Jacq. Enum. Pl. Carib., 25. *Mangle blanco.*
Celestun, May 12, 1865 (*Schott, 361*).

AVICENNIA OFFICINALIS Linn. Sp. Pl., 110.
A. tomentosa Jacq. Celestun, May 12, 1895 (*Schott, 473*).

Citharexylum quadrangulare Jacq. Enum. Pl. Carib., 26.
Merida, Aug. and Sept. 1865 (*Schott, 89* et spec. *sine num.*)

CLERODENDRON ACULEATUM (L.) Griseb. Fl. W. I., 500.
Merida, (*Schott, 27*).

Clerodendron Colebrookianum Walp. Rep. iv, 114.
"Rarely cultivated, one bush 4 feet high at Izamal blooming in Sept. (909).

DURANTA PLUMIERI Jacq. Select. Am., 186.* **Xcambococheé.**
D. repens and *spinosa* L. Merida, June 11, 1865 (*Schott, 381*).

LANTANA CAMARA Linn. Sp. Pl., 874. *Oregano Silvestre.* **Xo-hexnuc.**
"Shrubby, common in brushlands about Izamal, flowering from August until January" (808). "Abundant in a wild state" (*Valdez, 60*). Tekanto, shrub 6 ft. high, Feb. 25, 1890 (*Stone, 213*, in Herb. Acad. Sci., Phila.).

*Jacquin's name (1763) is accepted by Linnaeus in his third edition Sp. Pl. 1764.

Lippia umbellata Cav. Ic., ii., 75.
"Shrubby, 10 feet high, uncommon, found only on the ancient mounds southwest of Izamal" (871, 971). Our form is not so densely hairy either on the involucre or the under surface of the leaves as *4389*, Heyde & Lux, Guatemala.

PETREA ARBOREA H. B. K. Nov. Gen. et sp. ii., 282.
"Uncommon at Calcehtoh. A woody vine, with violet-like flowers deeper colored than the purple calyx, and with a spot on the middle petal." March 11, 1890 (*Stone, 259*, in Herb. Acad. Sci., Phila.).

PRIVA LAPPULACEA (L.) Pers. Syn., ii., 1807. **Oallunoay.**
P. echinata Juss. Suburbs of Merida, and Quinta del Obispo, Nov. to Dec., 1864 (*Schott, 22 and 23*). Tekanto, Feb. 27, 1890 (*Stone, 186*, in Herb. Acad. Sci., Phila.).

LABIATÆ.

Cedronella Mexicana Benth. Lab. Gen. et Sp., 502. *Toronjil.*
Campo near Merida, April 14, 1887 (*Millspaugh, 45*).

HYPTIS PECTINATA (L.) Poit., Ann. Mus. Par., vii., 474.
"Herb 5 feet high, common on brushlands about Izamal, November" (943).

Hyptis suaveolens (L.) Poit., Ann. Mus. Par., vii., 472.
"Herb 3 feet high, common along roads and in old fields about Izamal, November" (942).

Leonurus glaucescens Bunge, Ledeb. Fl. Alt., ii., 409.
Near Kikil, March 27, 1866 (*Schott, 773*). Cult?

OCIMUM BASILICUM Linn. Sp. Pl., 833. *Alvaca.*
Campo near Merida, escaped? April 14, 1887 (*Millspaugh, 44*).

OCIMUM MICRANTHUM Willd. Enum. Hort. Berol., 630.
Suburbs and streets of Merida, June 23, 1865 (*Schott, 511*). Yucatan loc. ignot. (*Stone, sine num.*, in Herb. Acad. Sci., Phila.). Calcehtoh, March 11, 1890 (*Stone, 265*, in Herb. Acad. Sci., Phila.).

Rosmarinus officinalis Linn. Sp. Pl., 33.
Campo at Uman, escaped, April, 1887 (*Millspaugh, 31*).

SALVIA COCCINEA Buchoz. ex Etling. Salv., 23.
Merida, suburbs, April 14, 1865 (*Schott, 160*, loc. ignot., *760*, in Herb. U. S. Natl. Mus.). Sitilpech, and Tekanto, Feb. and March, 1890 (*Stone, 188, 256*, in Herb. Acad. Sci., Phila.).

SOLANACEÆ.

Capsicum annum Linn. Sp. Pl., 270. *Chile.*
Cultivated at Merida, Feb'y 11, 1865 (*Schott, 237*). Campo near Merida, April 14, 1887 (*Millspaugh, 43*).

CAPSICUM FRUTESCENS Linn. Sp. Pl., 189.
Ticul (*Stone, 277*, in Herb. Acad. Sci., Phila.).

CESTRUM DIURNUM Linn. Sp. Pl. 277.
Suburbs of Merida, April 28, 1865 (*Schott, 123*).

DATURA STRAMONIUM Linn. Sp. Pl., 255. *Chamico.* **Mehen-Xtocu.**
"Herb 4 feet high. A very common weed in places, especially near small towns. In bloom from June to December, flowers pure white" (1062).

Nicotiana glutinosa Linn Sp. Pl., 259. **Kooɔ.**
Campo near Merida, May, 1865 (*Schott, 486*).

Nicotiana pilosa Dunal., de C. Prod., xiii., i., 559. **Kooɔ.**
"Waste grounds, campo near Uman, April, 1887 (*Millspaugh, 39*).

Physalis sp.
"Shrubby below, 3 feet high, very rare, found in fruit only, Sept. and Oct., along the road to Merida near Izamal" (1000).

Physalis angulata Linn. Sp. Pl., 262. *Jerba Mora.*
"Herb 4 feet high, abundant in fields and gardens about Izamal, in blossom throughout the year" (479).

Physalis fœtens Poir., Encycl. Suppl., ii., 348.
Merida, Nov. 28, 1864 (*Schott, 5*).

Physalis pubescens Linn. Sp. Pl., 262.
Suburbs of Merida, Dec. 4, 1864 (*Schott, 5*).

SOLANUM AMAZONICUM Ker-Gawl., Bot. Reg., t.,71. **Xkon-yaxik.**
"Shrubby, 6 feet high, abundant in opens and brushlands about Izamal, producing its bright-blue flowers throughout the year" (366). Tunkas common, flowers bright purple," March 3, 1890 (*Stone, 234*, in Herb. Acad. Sci., Phila.).

Solanum calicarpæfolium Kth. and Bou., Ind. Sem. Hort. Berol., App. 10.
Shrub 4 feet high, uncommon at the port of Ɔilam, producing its white flowers in April (652).

Solanum fuscatum? Linn. Sp. Pl. ed., ii., 268. **Xpacanul.**
Merida, July 25, 1865; Cenoté Yopop, on the road from Merida to Progreso, April 7, 1865 (*Schott, 310*). Grisebach sp. cit. Flor. Brit. W. I. places Yucatan in brackets after this species without farther reference to authority.

Solanum Jamaicense Mill. Gard. Dict., Ed. viii. 17.
"Shrubby, 10 feet high, uncommon in brushland about Izamal, April to Aug." (595).

Solanum Juripeba Rich, Soc. Hist. Nat., Par. i. 107. **He-Bech.**
"Shrubby 10 feet high, common in the forests about Izamal, producing its greenish-white flowers from Sept. to Oct." (856). In our specimens the thorns are flatly compressed and straight, spinescent on the midrib above and below, also not rare on the calyx, the leaves are subentire and very unequal at the base.

Solanum Mammosum Linn. Sp. Pl., 267.
"Herb 10 feet high, frequent on roadsides and in forests about Izamal, blossoming in October" (998).

Solanum Melongena Linn. Sp. Pl., 266. *Berengena.*
Cultivated at Merida (*Schott, 238*), not in flower Feb. 11, 1865.

Solanum rostratum Dun., Hist. Solan., 234.
"A common herb at Tekax, producing its lemon-yellow flowers in September" (1137).

SOLANUM TORVUM Sw. Prod. Veg. Ind. Occ., 47.
"Shrubby, 4 feet high, common at Progreso" (1167)

SOLANUM VERBASCIFOLIUM Linn. Sp. Pl., 263.
"Shrubby, 10 feet high, abundant in waste places and brush lands, flowering throughout the year, Izamal" (581). Suburbs of Merida, April 14, 1865 (*Schott, 339*).

SCHWENKIA AMERICANA Linn. Gen., ed. vi. 567.
"Along railroad near Izamal" (969 pt.).

SCROPHULARIACEÆ.

Angelonia angustifolia Benth., de C. Prod., x. 254. *Boca de la Viaja.*
"Herb 1 to 3 feet high, rarely cultivated at Izamal, where it produces its deep-blue flowers throughout the year" (544). Cultivated for its medicinal properties" (*Valdez, 59*).

BUCHNERA MEXICANA Hemsl. Biol. Centr. Am. Bot., ii. 457.
Grassy fields at Nohpat, Nov. 24, 1865 (*Schott, 826*).

CAPRARIA BIFLORA Linn. Sp. Pl., 628.
"Suffrutescent 4 feet high, common in brushlands about Izamal, March" (409, 590 in part). "Growing wild near Merida" (*Valdez, 98*). Merida, about houses, Nov. 30; and at the Cenote Dambula Dec. 14, 1864 (*Schott, 455, 70*).

Conobea pusilla (Benth.) Benth. & Hook. f. Gen., ii. 951.
"Herb 3-8 inches high, common in shady places near Izamal, producing its violet-blue flowers from July to August" (764).

CAPRARIA SAXIFRAGÆFOLIA Cham. & Schl. in Linn., v. 105.
Tekanto, flowers light blue, only one specimen seen, Feb. 28, 1890 (*Stone, 182*, in Herb. Acad. Sci., Phila.).

MONNIERA MONNIERA (L.) Britt., Mem. Torr. Club., v. 292. **Xaxcach.**
"Prostrate herb, abundant at the Aguada de Chulubmay, 9 miles east of Izamal, March" (1096).

MONNIERA PROCUMBENS (Mill) Kuntze Rev. Gen., 463.
Herpestis chamaedryoides H. B. K. Merida, Aug. 29, 1865 (*Schott, 616*). Tekanto, Feb. 27, 1890 (*Stone, 195*, in Herb. Acad. Sci.). Phila.

BIGNONIACEÆ.

Adenocalymna sp. **Chacanicab.**
"A bijuco, very common in the forests about Izamal, producing its gamboge-yellow flowers in April and May" (575).

Bignonia æquinoctialis Linn. Sp. Pl., 869. **Chacanicab.**
"Vine 40 feet, frequent in the forests near Buena Vista Xbac, April" (1068, 1098). Yucatan loc. ignot. (*Schott, 399*), "universally used as binding in constructing thatch roofs."

Bignonia diversifolia H. B. K.? Nov. Gen. iii., 133. **Chacxnetoloc.**
"Vine 40 (795) to 100 feet, uncommon in the forests about Izamal, producing its purple flowers from June to Sept." (725, 795). **Oolak, Xcolak,** Merida, June 1 and Aug. 6, 1865 (*Schott, 406, 560*).

Bignonia mollis Vahl? Ecl. Am. ii., 46. **Sacak.**
"Vine 40 feet, common in the forests about Izamal, producing its reddish-purple flowers in June" (739).

Bignonia Unguis-cati Linn. Sp. Pl. 623. **Xcanlol-ak.**
"Vine 20 feet, common in the forests about Izamal, flowers yellow, produced in March" (507). Merida, May 20, 1866 (*Schott, 776*).

CRESCENTIA CUJETE Linn. Sp. Pl., 626. **Huas.**
Merida, June, 1865 (*Schott, 521*).

Parmentiera cereifera Seem., Bot. Voy. Herald, 182. **Xcat-cunc.**
Merida, Aug. 25, 1865 (*Schott, 382*). Leaves, inclusive of the petiole, 1 inch long. "Shrub 12 feet high, common about Izamal, producing its neutral-green flowers throughout the year" (338). Leaves, including petiole, 2 to 2½ inches long.

PARMIENTERA EDULIS Mocq. de C. prod. ix., 244. **Kaat.**
Merida, Quinta del Obispo, cult? March 12, 1865 (*Schott, 242*).

Pithecoctenium hexagonum de C. Prod. ix., 195. **Xnetoloc.**
"Vine 50 feet, common in the forests about Izamal, the creamy-white flowers produced in May and June" (702). Mr. J. H. Thompson sends me a fine example of the fruit, remarking that the Mayas use the seeds as a remedy for frontal headache, by moistening and applying them to the forehead or temples according to the location of the pain.

Tabebuia sp. **Xha-hau-ché.**
"Tree 30 feet high, rare in the forests of Buena Vista Xbac, April" (1048). Flowers only collected.

TECOMA STANS Juss. Gen. 139.
Calcehtoh and Tunkas, bush 6–7 feet high, March 11, 1890 (*Stone, 258*, in Herb. Acad. Sci. Phila.).

PEDALIACEÆ.

MARTYNIA DIANDRA Glox. Obs. t. 1.
At the Hacienda Saragossa, Sept. 8, 1865 (*Schott, 623*).

ACANTHACEÆ.

BOUCHEA PRISMATICA (Linn.) Kuntze Rev. Gen. 502.
"Herb 4 feet high, common at Yaxcaba and Tekax, October" (1139).

BRAVAISIA TUBIFLORA Hemsl.
A common bush on the sand hills of Progresso, March 29, 1890 (*Stone, 287*, in Herb. Acad. Sci., Phila.).

DIAPEDIUM ASSURGENS (Linn.) Kuntze, Rev. Gen., 485. *Pensamienta.*
Suburbs of Merida, Dec., 1864 (*Schott, 154*).

HENRYA COSTATA A. Gray.
Tetramerium costatum. Tunkas, March 3, 1890; 2 feet high, flowers yellow striped above with reddish brown (*Stone, 244*, in Herb. Acad. Sci., Phila.).

RUELLIA ALBICAULIS Bert. Spreng. Syst., ii., 822.
Merida, Nov. 1864 (*Schott, 2*).

Ruellia geminiflora H. B. K. Nov. Gen. et. Sp. ii., 240.
Tekanto, flowers lilac, only one plant seen, Feb. 27, 1890; Tunkas common, March 3, 1890 (*Stone, 185, 242, 247*, in Herb. Acad. Sci. Phila.). Dr. Gaumer's 384, collected Oct. 1895 near Izamal, and referred on page 320 doubtfully to R. Tweediana, is doubtless also this species.

RUELLIA TUBEROSA Linn. Sp. Pl., 635. **Cabal-Yaxnic.**
Merida at Quinta del Obispo, Nov. 24, 1864, and April 13, 1865 (*Schott, 45, 282*). Izamal, Feb. 28, 1890 (*Stone, 254*, in Herb. Acad. Sci. Phila.).

SIPHONOGLOSSA SESSILIS (Jacq) Oerst.
"Suffrutescent 2 feet high, common in waste places near Izamal, April" (532).

TUBIFLORA SQUAMMOSA (Jacq) Kuntze, Rev. Gen., 500.
Merida, at Quinto del Obisbo, Nov. 23, 1864 (*Schott, 24*).

VALERIANODES JAMAICENSE (Linn.) Boerh. (Med.) Phil. Bot. i., 177.
"Herb 4 feet high, common at Merida, Izamal and inland" (1160).

PLANTAGINACEÆ.

PLANTAGO MAJOR Linn. Sp. Pl., 163. *Llanten.*
Merida, at Quinta del Obispo, Jan. 18, 1865 (*Schott, 193*).

RUBIACEÆ.

ERNODEA LITTORALIS Sw. Prod. Veg. Ind. Occ. 29.
Downs at Progreso, April 4, 1865 (*Schott, 287*).

Exostemma Caribæum (Jacq.) R. & S. Syst. v. 18. **Sabac-ché.**
"Shrub 20 feet high, not common at Xcholac" (957). Merida, Aug. 20, 1865 (*Schott, 585*).

CHIOCOCCA RACEMOSA Linn. Sp. Pl. 246. **Xcanchac-ché.**
Merida, July 28, 1865 (*Schott, 569, 499*).

Coffea Arabica Linn. Sp. Pl., 245. *Cafe.*
Cult? Merida, in flower and fruit Jan. 1866 (*Schott, sine num*).

CRUSEA CALOCEPHALA de C. Prod. iv., 567.
"At the Hacienda Mucuyché on road from Merida to Sacalum" (*Schott, 676*). "Herb 3 feet high, common on old fields, and in waste town lots at Izamal" (937).

HAMELIA PATENS Linn. Sp. Pl., 246. **Kanan.**
Suburbs of Merida, and in gardens Nov. 30, 1864 (*Schott, 174*).

MORINDA ROYOC Linn. Sp. Pl., 250. **Hoyoc.**
Near Merida (*Valdez, 67*). At Nohcacab, Nov. 27, 1865 (*Schott, 709*). Tunkas, a shrubby climber, March 3, 1890 (*Stone, 240*, in Herb. Acad. Sci. Phila.).

Psychotria undata Jacq. Hort. Schoen. iii., 5. *Cancerillo.*
"The dried and powdered, or toasted leaves used in the cure of **Uaga**, a form of malignant pustule." Merida, July 6, 1865 (*Schott, 524*). Differs from the description only in having some of the stipules awn-pointed.

RANDIA ACULEATA Linn. Sp. Pl., 214.
North of Merida on road to Progreso, April 7, 1865 (*Schott, 262*). Merida (*Schott, sine num* in Herb. U. S. Natl. Mus.).

SPERMACOCE TENUIOR Linn. Sp. Pl. 147.
"Herb 18 inches high, frequent in shady situations near Izamal" (965). Merida, at Quinta del Obispo, Nov. 24, 1864 (*Schott, 57*). Nohcacab, Oct. 19, 1865 (*Schott, 972*).

SPERMACOCE VERTICILLATA Linn. Sp. Pl., 148.
Merida, 1865; Nohcacab, Oct. 19, 1865; Ruins of Uxmal, Sept. 16, 1865 (*Schott, 117, 971, 972*). Tekanto common, Feb. 25, 1890 (*Stone, 207*, in Herb. Acad. Sci., Phila.).

CAPRIFOLIACEÆ.

SAMBUCUS CANADENSIS Linn. Sp. Pl., 269.
Merida, (Cult?), Jan. 3, 1865 (*Schott, 180*).

CUCURBITACEÆ.

CAYAPONIA ALATA Cogn. de C. Monogr. 3.
Hacienda Saragossa, Sept. 8, 1865 (*Schott*, type *901*).

CAYAPONIA GRANDIFLORA Cogn., de C. Monogr. 3.
Ticul, Oct. 21, 1865 (*Schott*, type *680*).

Lonicera macrantha ? (Don.) de C. Prod. iv. 333.
Vine 10 feet, uncommon in the forests of Tekax, September (1105).

LUFFA ÆGYPTIACA Mill., Gard. Dict., ed. 8.
L. cylindrica Rœm. Suburbs of Merida, November 30, 1864 (*Schott, 6*).

MELOTHRIA PENDULA Linn. Sp. Pl., 35.
Merida, June, 1865 (*Schott, 572*). "The leaves are used by the Mayas to extract foreign bodies from beneath the eyelids." Leaves less lobed than in other Yucatan collections.

CORALLOCARPUS MILLSPAUGHI Cogn. F. Col. Mus. Bot., i, 322. **Xlucioan.**
Merida, July 11, 1865 (*Schott, 479*).

Pittiera longipedunculata Cogn., Bull. Soc. Bot. Belg. xxx, 272. **Ponponoit.**
"A vine 10 feet, rare in moist places near Tekax, September" (1135).

Cucumis Anguria Linn. Sp. Pl. 1436. **U-habaplat-oil-Kax.**
"An infrequent vine, Tekax, September" (1127). "Vine 20 feet, rare, Progreso" (1158).

MELOTHRIA PENDULA Linn. Sp. Pl., 49.
"Vine 15 feet, common near Progreso" (1180).

Melothria fluminensis Gardn. Jour. Bot., i, 173.
"Vine 10 feet, uncommon near Progreso" (1181). Merida, November, 1865 (*Schott, 900*).

MOMORDICA CHARANTIA Linn. Sp. Pl. 1433.
"Vine 20 feet, common in waste places at Tekax, September" (1124). Hacienda Guayalcé, September 19, 1865 (*Schott, 633*).

TRICERATIA BRYONIOIDES A. Rich., Ess. Fl. Cub., 614.
Sicydium tamnifolium Cogn. "Vine 25 feet, common in stony soil and on stone fences near Izamal, October and November" (922).

GOODENIACEÆ.

SCAEVOLA PLUMIERI (L) Vahl. Symb. ii, 36.
Sandy seashore at Progreso, April 5, 1865 (*Schott, 294*).

COMPOSITAE.*

Achillea Millefolium Linn. Sp. Pl., 899. *Alcanfor.*
Campo about Merida, not in flower, April, 1887 (*Millspaugh, 47*).

AGERATUM CONYZOIDES Linn. Sp. Pl., 839.
Near Merida, January 4, 1865 (*Schott, 208*).

ALOMIA AGERATOIDES H. B. & K., Nov. Gen. et. Sp. iv. 151.
Tekanto and Tunkas, February and March, 1890 (*Stone, 190, 238*, in Herb. Acad. Sci., Phila.).

BIDENS LEUCANTHA Willd Sp. Pl., iii. 1719.
"Herb 2 feet high, abundant at the Port of Silam, rays white, April" (632).

Bidens tereticaulis de C. Prod., v. 598.
Merida, December, 1864 (*Schott, 145*). Tunkas, March 3, 1890 (*Stone, 240*[a] in Herb. Acad. Sci., Phila.). "Ascending among shrubbery like a vine, producing its orange-yellow flowers in October" (951).

Brickellia diffusa A. Gray, Pl. Wright., i. 86.
"Herb 10 feet high, uncommon in fields and brushlands near Izamal, flowering from December to March" (1080).

Calea axillaris urticifolia Rob & Greenm. Proc. Am. Acad. Sci., xxxii, 27.
Shrubby 5–6 feet high, flowers yellow, Tunkas, March 3, 1890 (*Stone, 243, 245*, in Herb. Acad. Sci., Phila.). "Shrubby 15 feet high, ascending among shrubs in the brushlands near Izamal" (956).

Calea Zacatechichi Schl. in Linn. ix, 589. **Xicin.**
Nohpat, November 24, 1865 (*Schott, 912*).

Cosmos caudatus H. B. & K. Nov. Gen. et. Sp. iv. 240. **Chacxul.**
"Herb 4 feet high, uncommon at Izamal" (940).

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* Determined (with the exception of Pectis) by Mr. J. M. Greenman.

DYSODIA CANCELLATA A. Gray, Proc. Am. Acad. xix, 38.
Merida, December 4, 1864 (*Schott, 78*).

Eclipta alba Hassk. Pl. Jav. Rar., 528.
"Herb 10 inches high, in shady places near Izamal, uncommon, October" (1012).

ERIGERON CANADENSIS Linn. Sp. Pl., 863.
Charcos at Celestun, May 12, 1865 (*Schott, 362*).

EUPATORIUM CONYZOIDES Vahl. Symb. Bot., iii. 96.
Suburbs of Merida, December, 1864 (*Schott, 144*). "Ascending 15 feet, among other shrubbery and on old fences in the brushlands about Izamal, producing its heliotrope-colored flowers in October" (914, 953).

EUPATORIUM PYCNOCEPHALUM Less. in Linn. vi. 404.
"Herb 6 feet high, common at Aguadas near Izamal, October" (1022).

FLAVERIA LINEARIS Lag. Gen. et. Sp. Nov., 33, 407.
Celestun, May 12, 1865 (*Schott, 408*).

Flaveria repanda Lag. idem.
Downs of Progreso, December, 1865 (*Schott, 973*). "Merida and Progreso, along the coast" (1147 part).

Helianthus annuus Linn. Sp. Pl., 1276. *Girasol.*
Campo, suburbs of Uman, escaped, April, 1887 (*Millspaugh, 32*).

Isocarpha oppositifolia R. Br., Tr. Lin. Soc., iii., 110.
Tizimin, March 28, 1866 (*Schott sine num.*). "Herb 5 feet high among the shrubbery of the brushlands and forests near Izamal, October to January" (976).

MELANTHERA HASTATA Michx., Fl. Bor. Am., ii., 106.
Amellus niveus (L) O. K. Merida, May 30, 1865 (*Schott, 164.*)

MELAMPODIUM PALUDOSUM H. B. & K., Nov. Gen. et. Sp. iv., 273.
M. divaricatum de C. Merida, Nov. 14, 1864 (*Schott, 28*). Calcehtoh, Mar. 11, 1890 (*Stone 272*, in Herb. Acad. Sci. Phila.) "Common in open places near Izamal, Nov." (961).

Mikania cordifolia Willd., Sp., Pl., iii., 1746.
About Nohcacab, Nov. 1865 (*Schott, 716*).

Milleria quinqueflora Linn. Sp. Pl. 919. **Xyoutoloc.**
Cercanias about Merida, Nov. 15, 1864 (*Schott, 90*). "Herb 9 feet high, abundant in fields and vacant lots about Izamal. Flowering from Oct. to Jan'y" (949).

Montanoa grandiflora Hemsl.? Bio. Cent. Am. Bot., ii., 165.
Tizimin, Mar. 28, 1866 (*Schott, sine num*).

Pectis elongata Schottii Fernald.* Proc. A. A. A. S., xxxiii., 78.
"Much more slender in its diffuse branches than the species, leaves small, heads scattered and solitary in the axils, on capillary 3-4-bracteate peduncles 2 or 3 cm long: involucre pale, 4 mm high; pappus hardly equaling the akene. Serceania near Maxcanú, Sept. 14, 1866" (*Schott, 666*, Cat. No. of Type 40483 Herb. Field Col. Mus.).

Pectis linifolia Linn. Syst., Ed. x. 1221.
P. pectinata Jacq. "Herb 2 feet high, stone walls near Izamal, uncommon" (979).

PECTIS PROSTRATA Cav., Ic., iv., 12.
"Herb 6 inches high, common along roads and paths in the forests about Izamal" (1092). Merida, Aug. 20, 1865 (*Schott, 533*).

Pluchea camphorata de C., Prod. v., 452.
"Herb 6 feet high, abundant at Chulubmay, producing its purple flowers in March" (1099).

PLUCHEA ODORATA Cass. Dict. Sc. Nat. xlii., 3 **Chalché**
Salt swamps at Sisal, Nov. 9, 1865 (*Schott, 915*). Specimens gathered by Dr. Schott at Merida (*185*) and by myself at Izamal (*Armour Expd 176*) were doubtless introduced from the coast, as the plant is used in Yucatec domestic medicine much as is boneset in the United States.

PLUCHEA PURPURASCENS de C., Prod. v., 452.
"Herb 6 feet high, old fields about Izamal, uncommon, producing its rose-colored flowers in October" (1002).

Porophyllum Ervendbergii A. Gray, Proc. Am. Acad., xix., 35. **Xpeehukil.**
Merida, at the Quinta del Obispo, Nov. 15, 1864 (*Schott, 81*).

SANVITALIA PROCUMBENS Lam., Jour. His. Nat. Par., ii., 176. **Xkantumbub**
Merida, where it is used by the Mestizas as a remedy for the spitting of blood, Nov. 29, 1864 (*Schott, 14*). "Herb 18 inches, common at Cacalchen and Euan, producing its yellow and red-brown flowers from June to March" (964).

Sclerocarpus divaricatus B. & Hook. f., Biol. Cent. Am. Bot. ii., 164.
Labcah, July 30, 1865 (*Schott, 67*). "Herb 3 feet high, abundant in old fields near Izamal, from July to Jan'y" (410 part, 771).

Senecio Berlandieri (de C.) Hemsl. Biol. Cent. Am. Bot., ii., 236.
Gynoxis de C. A climber among mimosa trees near Sisal (*Schott, 407*).

* The species of this genus were determined by Mr. M. L. Fernald.

SYNEDRELLA NODIFLORA Gaertn. Fruct. ii. 456.
Merida, at the Quinta del Obispo, Nov. 15, 1864 (*Schott, 93*). "Herb 6-18 inches high, common in waste places near Izamal, in bloom throughout the year" (359, 952).

TAGETES PATULA Linn. Sp. Pl., 887.
On the Teocali of Kabah, Nov. 26, 1865 (*Schott, 708*). Calcehtoh, Mar. 11, 1890 (*Stone, 273*, in Herb. Acad. Sci. Phila.).

TITHONIA DIVERSIFOLIA A. Gray, Proc. Am. Acad., xix. 5. *Arnica.*
"Herb 15 feet high, quite shrubby, cultivated at Izamal where it blooms in November" (944).

Tithonia tagetiflora Desv. Ann. Mus. Par., i., 46. **Zum**
Merida, Dec. 3, 1864 (*Schott, 68*). "Herb 10 feet high, abundant in old fields, producing its orange-yellow flowers from Aug. to Sept." (899).

TRIDAX PROCUMBENS CANESCENS de C., Prod. v., 679.
Tekanto, Feb. 27, 1890 (*Stone, 212*, in Herb. Acad. Sci. Phila.).

TRIXIS FRUTESCENS P. Br., Pl. Jam. 312.
T. radialis (L) O. K. Merida, Feb. 2, 1865 (*Schott, 189*).

VIGUIERA HELIANTHOIDES H. B. & K. Nov. Gen. et. Sp., iv., 226. **Toh.**
Suburbs of Merida, Jan. 1, 1865 (*Schott, 190*). "Herb 2 to 5 feet high, very abundant in old fields about Izamal and Xcholac, Oct. to May" (502, 557).

Xanthium Canadense Mill. Gard. Dict., ed. viii., 2.
"Herb 2 feet high, uncommon near Merida where it has probably been introduced in foreign baled hay" (1145).

Zexmenia Costaricensis Bth. Oerst. Kjob. Medd. 95. **Sactah.**
Between Guayalceh and Yumuó, Oct. 2, 1865 (*Schott, 914*). "A shrubby climber, 20 feet, on an artificial mound 8 miles southwest of Izamal, Nov." (960, 962.)

Notes and New Species—Prof. Ludwig Radlkofer; A New Myginda—Dr. Theodor Loesener; and Additional Notes and Species by the Author.

ULMACEÆ.

Mertensia lævigata H. B. K. Nov. Gen. et. Sp., ii., 31.
Celtis aculeata Sw. ex Ind. Kewens., sed vix recte ob folia integerrima; inde Celtis lævigata nominanda—Radlkofer.
"Common at Buena Vista Xbac, flowering in May" (567).

CAPPARIDACEÆ.

Forchhammeria trifoliata Radlk. sp. nov. *Tres Marias.*
Arbor glabra; rami florigeri pallidi, lenticellosi, annulo ligni (librique) dupliori insignes; folia ad ramorum apices conferta, petiolata, trifoliolata; foliola ex obovato cuneata, breviter acutiuscule acuminata vel obtusata, breviter petiolulata, margine integerrimo subundulata, pallide viridia, fibris sclerenchymaticis crebris percursa; flores parviosepali, apetali, masc. in paniculam amplam congesti, staminibus 12–15 disco insertis, fem. subracemosi, germine intra staminodia pauca disco insidente ellipsoideo 2–(rarius 3–) loculari, stigmate sessili 2(–3)–lobo, gemmulis in loculis binis ad media septa crassiuscule carnosa vel ad angulos centrales collateraliter affixis pendulis anatropis epitropis; fructus ignotus.
"*Arbor* 30-pedalis sat rara" (Gaumer). *Rami* florigeri diametro 6 mm. teretes, lenticellis crebris breviter ellipticis sulco mediano notatis obsiti, jam annulum secundum fasciculorum fibrovasalium ut in Roydsia et Maerua (cf. Radlkofer in Sitzungsber. K. bayer. Acad. XIV, 1884, p. 90) intra libri primarii fibros sclerenchymaticos (nec ut in Forchhammeria pallida Liebm. et F. apiocarpa Radlk. extra illos, cf. l. c.) ortum exhibentes. *Folia* innovationum inferiora sub gemmis dormientibus abortiva vel in squamulas conversa, superiora petiolo 3–10 cm. longo adjecto 14–24 cm. longa, 10–16 cm. lata. foliola petiolulatis 3–4 mm. longis adjectis 10–16 cm. longa, 3,5–6 cm. lata. lateralia paullominora subcoriacea, penninervia, nervo mediano supra planiusculo subtus convexo sat valido siccitate undulato in apicem callosum excurrente, nervis lateralibus sat numerosis (12–18) dentibus oblique patulis ante marginem arcuato-anastomosantibus, inter nervos retivenarum obliquo (quasi vena ramificata ab arcu

ad nervum medianum recurrente) notata margine linea cartilaginea circumvallata, glaberrima, utrinque opaca vel supra subnitida, epidermide nunc conspicue, nunc vix crystallophora, diachymate arcte fibroso, hypodermate ad paginam superiorem vix nisi juxta nervos instructa; petiolus a dorso adventrem compressiusculus, striatus, supra sulco angusto notatus, basi incrassatus cum ramulo articulatus; stipulae minimae, apiculos glanduliformes ad mediam petioli insertionem (vel folii cicatricem) exhibentes. *Florum masc.* paniculae densiflorae, pyramidales, 17 cm. longae, 6 cm. latae, ramis racemiformibus praeter florem terminalem saepius luxuiantem flores complures laterales pedicellatos hic inde in dichasia consociatos in axillis bractearum parvularum subulatarum gerentibus, adjectis interdum floribus rudimentaritis; pedicelli 3–6 mm. longi. *Sepala* bracteis conformia, parva, 1.5 mm. longa, subulata, 4–6; Petala 0. *Discus* pulvinatus. *Stamina* supra discum inserta, filiformia, glabra, antheris brevibus, basi subcordatis, subintrorsis, ad connectivi basin dilatatam dorso insertis. *Pistilli* rudimentum 0. *Florum foem.* inflorescentiae racemiformes (polychasia) in axillis foliorum 5 cm. longae, ima basi utrinque ramum aequilongum emittentur praeter florem terminalem, flores complures laterales, pedicellatos vel eorum loco hic inde dichasia vel polychasia parvula in axillis bractearum subulatarum vix 2 mm. longarum gerentes; pedicelli 2–3 mm. longi. *Sepali* bracteis conformia, 4–6. *Petala* 0. *Discus* elevato-pulvinatus, carnosus. *Staminodia* 5–6, 1-seriata, stamina rudimentaria abbreviata antheris sterilibus exhibentia. *Germen* ellipsoideum, 2 mm. longum, 1.5 mm. latum, basi coarctata subsessile, plerumque biloculare; stigmatis lobi dorsales.

Yucatan: Dr. G. F. Gaumer n. 370! (flor. foem. m. Feb. 1895); n. 417! (flor. masc. m. Mart. 1895).*

Obs. A Forchhammeriae specibus reliquis (F. pallida Liebm., F. apiocarpa Radlk. F. Watsoni Rose) recedit foliis compositis et floribus masculis paniculatis nec non foliorum fabrica (hypodermate minus conspicuo, epidermate interdum vix crystallophora, diachymate fibris percurso), insuper ligni annulo secundo intra libri primarii fibros (nec extra eos) oriente. Attamen vix dubie ejusdem generis est.

MALPIGHIACEÆ.

Malpighia glabra acuminata A. Juss.

Ex descr.—Radlkofer. "Shrub 15 feet high, not common in the forest and brushlands about Izamal, where it produces its showy rose-pink flowers in November" (972).

*Branch of female shrub 20 feet high, collected at the base of the smaller mound at Izamal, January (*Millspaugh, A. V. Armour Exped.* 86).

RUTACEÆ.

Casimiroa tetrameria Millsp. sp. nov.

Arbor glabra, 30 pedalis, rami pallidi verrucosi, foliis alterna terminalia longe (5–9 cm.) petiotata, dense et molliter hirsuta, digitatim 3–5-foliolata, foliolis ovato-lanceolatis integerrimis e basi cuneatis in acumen emarginatum terminatis, omnia breviter petioulata, duo inferiora frequenter auriculo-lobulata. Florum masc. in paniculae ramosae axillares et extra-axillares ad cicatricis foliorum antiquus, 2–7 cm. long. 1–5 cm. lat., pubescentibus, ramis plus minus racemiformibus; pedicellis floribus aequantis, bractæ minutae stipuliformis, calyce tenuis 4-dentibus, petala 4, crassiuscula carnosa, stamina 4, erecta, infra discum inserta ad basi crasiuscula, antheris verticillatis, discus minutis. Flor. foem. et fruct. ignot.

Folia 18–24 cm. long., foliola 6–10 cm. long., 2.5–5 cm. lat. Rara ad Xcholac, m. Nov. (1006).

Esenbeckia pentaphylla Griseb. Fl. Brit. W.I., 135. **Yax-hocob.**

Ex descr.—Radlkofer. "Tree 50 feet high, uncommon in the forests about Izamal, producing its cream-colored flowers in July" (752).

EUPHORBIACEÆ.

Adelia Oaxacana (Muell.) Hemsl. Biol. Cent. Am. Bot., iii. 129? **Xtompac.**

Ex descr.—Radlkofer. "An abundant shrub 20 feet high, Xcholac, February" (446).

CELASTRACEÆ.

Myginda Gaumeri Loes. sp. nov.

Ramulis parva et tenuiter hirtellis; foliis progenere majusculis, ovata-lanceolatis, minute serrulatis, basi cuneatis, apice obtusis et minute apiculatis, tenuiter coriaceis, glabris, 5–9.5 cm. longis, 2–3.4 cm. latis, supra et subtus dense prominulo et reticulatim nervosis; inflorescentiis in foliorum axillis solitariis, dichotome furcatis, sub lente parce et tenuiter hirtis, bracteis minutis; floribus numerosis, 4-meris; calyce extrincecus tenuissime pilosulo, sepalis obtusis; petalis rotundatis; disco lobis 4, subemarginatis formato; staminibus inter eius lobos insertis, parvis; ovario 2-loculari, in stylum brevissimum angustato; loculis 1-ovulatis, ovulis erectis, stigmate parvo capitellatis.

Yucatan, Buena Vista Xbac: Gaumer n. 1049. Flor. m. Apr. Petala in sicco brunneo-violacea sed postquam in aqua cocta colorem glauco-coeruleum ostendunt. "Frutex sylvicola, 15 pedalis."

HIPPOCRATEACEÆ.

Hippocratea Grisebachii Loes. Eng, Prantl. Nat. Pfl. iii. 5, 227.
H. verrucosa Griseb. in Goett. Abh. xxiv: 84 (1879) Non H. B. K. Nov. Gen. et Sp., v. 136 (1821), teste Loesener ipso in litl.
"Vine 25 feet, common in forests about Izamal, February" (385).

SAPINDACEÆ*

Allophylus Cominia Swtz. Prod. Veg. Ind. Occ., 62 (1788).
Schmidelia Cominia Swtz. Prod. Veg. Ind. Occ., ii. (1800).
"Shrub 20 feet high, common in forests about Izamal, August" (893).

[CARDIOSPERMUM CORINDUM molle Radlk.
C. molle H. B. K.—C. Corindum *forma* 3 molle. Radlk. Flor. Brazil Fasc. 122:447 (Sept. 1897.) Gaumer's 494 (Contrib. ii:306) has not been seen by Prof. Radlkofer, the above note is simply bibliographic.]

Paullinia Cururu Linn. Sp. Pl. 365.
"Vine 50 feet, common in the forests of Buena Vista Xbac, April" (1041).

PAULLINIA FUSCESCENS GLABRESCENS Radlk.
Paullinia Curassavica of Biol. Centr. Am., Bot. iv:3, Millspaugh Contrib. Fl. Yuc. I:33, is to be replaced by Paullinia fuscescens Kth., forma 3. glabrescens Radlk., Monogr. Paullin. (1895–96) in Abhan. K. bayer. Acad., 283, (Sep. 217) line 10 from below. The true Paullinia Curassavica of Linné, is a Serjania –S. Curassavica Radlk., in Monogr. Paull., 305 (Sep. 239). The plant collected on the Island of Cozumel by Gaumer and noted in Biol. Cent. Am., Bot. iv:3 has been overseen (sic) in Radlk. Monogr. Paull. The quotation of Grisebach Fl. Brit. W. Ind. by Hemsley is right for the Columbian plant, not that of Jamaica, which is P. Jamaicensis Macf.
"Vine 30 feet, common in forests about Izumal, Sept. and Oct." (900).

Sapindus Saponaria inaequalis (de C) Radlk.
Sapindus Saponaria L. forma inaequalis Radlk., *S. inaequalis* de C. This is the "Sapindus sp. near divaricatus Willd" published in Biol. Centr. Am., Bot. iv. 3, collected by Dr. Gaumer on the Island of Cozumel in 1886, which I have seen; also 396 Gaumer "common about Izamal, flowering in February."
(I observed this form growing plentifully at the Laguna Columbia and Cedral, Island of Cozumel in 1895 while accompanying the Allison V. Armour expedition, and collected it also at Izamal. C. F. M.)

*Professor L. Radlkofer.

Serjania adiantoides Radlk. sp. nov. **Bui.**

Fructu et habitu in Sect. xii. (Synococcus) affinis Serjaniae orbiculari Radlk., insignis caulibus subherbaceis in angulis pilis patentibus hirsutis, foliis sub-bipinnatis 4-jugis, jugo infimo utrinque 5-foliato pinnato, sequenti ternato, reliquis simplicibus, floribus in thyrsis bicirrosis ob rhachim abbreviatam subumbellatim confertis. (Habitu quo dammodo in mentem revocat Paulliniam thalictrifoliam Juss.).

Yucatan: Dr. G. F. Gaumer n. 1114 (Buena Vista Xbac, m. Sept. 1895, alab. et fruct.; stirps rara, ad altitudinem "10 ped." scandens.

SERJANIA ATROLINEATA Sauv. & Wr. Fl. Cuba, 24.

Serjania Scatans Radlk. Monogr. Serj. 213., see Radlk. Serj. Suppl., 1886:116. This replaces the Seriana scatans (Radlk) on p. 33 of these contributions.

Serjania goniocarpa Radlk. Serj. Monogr. 309.

"Vine 60 feet, abundant in forest and brush lands about Izamal where it flowers in September" (973).

SERJANIA PLICATA Radlk. Monogr. Serj. 167.

Not Seriania plicata (Radlk.) as listed on p. 33 of these contributions.

Talisia olivaeformis (Kth.) Radlk., in Sitz. K. bayer. Acad., viii. 342. *Guayo.* **Uayum.**

Melicocca olivaeformis Kunth. "Tree 60 feet high, common in the forests of the peninsula, and cultivated in the villages. February to April" (406).

Thouinia paucidentata Radlk. sp. nov.

Arbor "30 pedalis, vulgaris" (Gaumer); folia ternata (petiolo 2 cm. longo adjecto 6-7 cm. longo); foliola lanceolata, in acumen obtusum terminata, supra medium remote obtuso-dentata, praeter nervorum axillas subtus barbatas glabra, impunctata, epiderme mucigera; thyrsi axillares, racemiformes, eramosi, breves, stricti, puberuli; flores in axillis bractearum per brevium plerumque bini, pedicellati, puberuli. (Fructus non suppetebant.)

Yucatan: Dr. G. F. Gaumer n. 865! (m. Aug.-Sept. 1895, flor.)

Urvillea ulmacea genuina Radlk.

Urvillea ulmacea Kunth, forma 1 genuina Radlk., in Sitz. K. bayer. Acad., viii. (1878): 263, 264; et in Fl. Braz. Fasc. 122 (1897): 423.

"Vine 20 feet, abundant in brush lands about Izamal, January to July 481."

(Through an error in the printer's make-up of p. 307, Contribution ii., this species is included under Vitaceæ instead of preceding that order at the head of the page.)

VIOLACEÆ.

Hybanthus Yucatanensis Millsp. sp. nov.

Frutex "8 pedalis," caule albo erecto, sparsim aculeato, ramoso; ramis junior. viridis quadrangularis, angulis tenuiter papyraceo-alatis; foliis ramibus plerumque fasciculatis vel alternis, cuneato-lanceolatis margine regulariter crenato-dentatis, apice plerumque acutis, quandam obtusis rarissime emarginatis, petiolo plus minus patentibus, rarissime 1–2 mm. longo. Floribus minimis fasciculatis pedunculatis; pedicellis unifloris farinaceis. Sepalis ovatis acutis margine ciliatis, petalo infimo calyce duplo longiore, basi saccato apice cucullato integerribus, lateralibus et superioribus ovatis obtusis margine erosis; antheris columnaris, glandula nectarea magna conchæformis, stylo nepenthæformis, ovario ovato subtrisulcato (junior.).

"Infrequens ad Izamal, Yucatan m. Feb.-Mart. n. 469, flores virido-flava." Dr. G. F. Gaumer, 1895.

SAPOTACEÆ.

Bumelia obtusifolia buxifolia Miq. et Eichl. Fl. Bras. vii: 47.

Puɔmucuy.

"Shrub 15 feet high, abundant in brushlands about Izamal, March to April" (473).

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BOTANICAL SERIES. VOL. I, No. 5.

STUDIES IN THE HERBARIUM.

I.

HIGINBOTHAMIA,

A NEW GENUS, AND OTHER NEW DIOSCOREACEÆ.

NEW AMARANTHACEÆ.

BY

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CHICAGO, U. S. A.

August, 1899.